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HEROES OF THE POLAR SEAS



With difficulty he pulled himself on board.

HEROES OF THE POLAR SEAS

A RECORD OF EXPLORATION IN THE
ARCTIC AND ANTARCTIC SEAS

BY

J. KENNEDY MACLEAN

WITH EIGHT ILLUSTRATIONS

by

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HEROES OF THE POLAR SEAS.

CHAPTER I.

THE GAINS AND LOSSES OF POLAR ENTERPRISE.

EVER since that far-off day in the dim ages of the world's youth, when, as the scientists tell us, 'an ancestor crawled up out of the slowly cooling sea,' man has been stretching out his hand after the Tree of Knowledge. Since that first discovery 'when a previously unsuspected capacity for directly breathing air gradually revealed the fact that we had for long been breathing air in the water, and that we were living in the midst of a vastly extended environment—the atmosphere of the earth,' he has never rested in his quest after the unknown. Along the toilsome roads that lead to the dazzling gateway of power he has trudged unceasingly throughout the long centuries. He has been baffled only to fight better, defeated only to conquer. One by one in the upward march the

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secrets of Nature have been wrested from her; mind has triumphed over matter; riddles of the universe have been solved, but, as each discovery is made, man, disdaining to sit down in contentment, looks around him for fresh fields of exploration.

And so, while the sum of knowledge is constantly growing, there is no resting-place in the conquest of the unknown. Man continues to grope and to attain, and each new achievement is another step towards the great goal that is ever beckoning, ever alluring, ever receding.

In all man's struggles with the forces of Nature there is, perhaps, none with the same glamour and romance as are associated with the search for the North Pole. Under its spotless mantle of ice that frozen extremity of the earth's surface has laughed its defiance at the brave men who have ventured within its terrible regions, flinging back at them again and again their challenge, and mocking them when the secret so long and so gallantly fought for seemed on the point of being revealed.

For about four hundred years the lion-hearts of our own and other lands have braved the terrors of the Polar Sea. They have been locked in its icy embrace for years at a time, uncomplainingly

enduring the tortures of cold and hunger; many of them sleep beneath the Arctic snow, having failed to find a way back, while those who returned to civilisation had little to tell but the same old, oft-repeated story of failure. And yet, surely, not of failure altogether. In their prime purpose the expeditions may have failed, but with their apparent failure was mingled a large measure of success, for they were the means of throwing fresh light upon hidden portions of the world; they discovered new lands and seas, and they opened up profitable routes for commerce.

The following pages tell with some detail the thrilling story of Arctic and Antarctic endeavour, from the very beginning of the long succession of enterprises right up to the present time. As we read, we see how throughout those long and weary years of effort the dauntless spirit of man refused to accept the defeats which Nature inflicted with such steady and painful persistency. Baffled in one direction, the lion-hearted race of explorers renewed the attempt in another; when one method failed a new one was evolved, and thus, step by step, the area of the unknown became gradually reduced in extent.

In the quest of the Poles the vessels in which

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the explorers sail can take them only a certain part of the journey; sooner or later the frozen water blocks the way. Giant icebergs bid defiance to further progress, and as the sea freezes around the ship it holds her in a grip of iron. In these two regions of cold and ice, the bergs possess distinctive characteristics of their own. In the Arctic, according to one writer, 'they are tall, irregular and pinnacled; in the South they are flat-topped. They may be of any length. We saw many three or four miles long, and one, a floating island of ice, thirty miles long.' And again: 'One was beautifully conical, and some had very well-marked stratification; one was hewn into beautiful Doric pillars; others were in the form of grand arches; others, still, had great caves hollowed out of them, which, in some cases, were connected with vertical holes piercing their upper surface. Through these holes, when a heavy swell beat up the caverns, columns of water and spray were ejected, often to a great height. Although these bergs are brilliant with whiteness, yet they glow with colour.'

Imprisoned in the ice hundreds of miles from the point which they are so eager to reach, the explorers utilise the brief season of summer in making

sledge journeys towards their goal. In dragging the sledges the Eskimo dogs have proved of great service, and Peary in particular bears testimony to their strength and sagacity, saying that but for them he would never have reached the North Pole. Shackleton took with him several Manchurian ponies for hauling purposes; while Scott had with him on the expedition which left in 1910 three motor-sledges, from which he expected to get good results.

In early Arctic voyaging, as Sir Leopold McClintock tells us, the ship alone was relied upon for penetrating into the unknown seas. It was not until the second and third voyages of Parry, and the second voyage of Sir John Ross—that is, between 1821 and 1834—that sledging was commenced, and a number of short journeys were made, mainly by the assistance of Eskimos, whose methods were closely observed and more or less imitated. To the English explorers of the early nineteenth century therefore belongs the honour—to quote again this famous authority—of being the first to discover that ‘the ice which arrests the progress of the ship forms the highway for the sledge,’ and, in the opinion of Captain Scott, the distinguished Antarctic explorer, the men of that period in

making this use of the frozen highway 'accomplished work which has remained, and will probably remain, unsurpassed.'

'To realise the great revolution which has been effected in Arctic exploration,' says Captain Scott, 'it has to be remembered that in 1820 the fact of an explorer venturing beyond his ice-bound ship had barely been considered, whereas little more than thirty years later it could be written of these far northern regions: "It is now a comparatively easy matter to start with six or eight men and six or seven weeks' provisions, and to travel some 600 miles across snowy wastes and frozen seas from which no sustenance can be obtained."'

In the long marches over the snow and ice which the adoption of sledging necessitated, explorers have endured many hardships. With food and clothing necessarily limited—for weight is always an important factor in these journeys—they have ventured far from the shelter of their ships and their huts, exposing themselves to the icy and tempestuous elements, and facing dangers that threatened life at almost every step. Great deeds of heroism have been performed on these marches; over and over again men have continued to haul their sledges when they were scarcely able to crawl, and have pulled

their stricken comrades when the latter, if left to their own exertions, would never have reached a place of safety. It has happened that for days on end the blinding snowstorms made travelling impossible and confined the men to their sleeping bags; at other times a couple of miles would represent the physical exertions of a day, but when the elements were more favourable twelve or fifteen miles would be covered with comparative ease, and Scott records that on one occasion he actually accomplished thirty-seven miles in one day.

The evolution of sledging certainly played a great part in the history of Arctic achievement, but both before and after the introduction of the sledge there were moments when it seemed as if the Pole would for all time defy the generations of explorers who risked their lives in the great quest. Sir John Franklin and his gallant men died in the frozen wilderness; not a few of their successors shared the same fate, while some of the other daring navigators only struggled back to civilisation after enduring agonies the horror of which no pen can ever describe.

Britain's direct interest in the search for the North Pole ceased with the return of the expedition under Sir George Nares in 1876. A new

record of travel was then created, and both for heroic endeavour and practical accomplishment the voyage was indeed a remarkable one; but this country seems to have suddenly concluded that the glory of planting the national flag at the summit of the earth was not worth the expenditure of additional lives and treasure, and thus the door was left wide open for the enterprise of our American friends. Taking up the work where Great Britain had dropped it, the representatives of the United States soon discovered the immense difficulty of the task. But it was characteristic of that nation that they persevered. Neither the terrible lesson of the ill-fated *Jeannette* expedition, under De Long, nor the unspeakable miseries of Greely and his men at Fort Sabine checked the ardour of other brave hearts, and, prominent among those whose names will ever find a place on the roll of honour, Nansen, the Norwegian, and Peary, the American, ventured far beyond the tracks of their predecessors.

Devoting his life to the attainment of the goal that had lured so many men to sorrow and disappointment, Peary was determined to snatch success from the jaws of defeat, but time after time he sailed home without the coveted prize. He improved his methods; he made friends with the

Eskimos, and profited by what they could teach him; he took his life in his hands a hundred times; once or twice success seemed to smile on him, and then Fate inflicted another of its withering blows. But though he had his moments of doubt and despair, he refused to acknowledge himself defeated. After twenty years of arduous effort, when the vigour of youth was beginning to abate and the hopes of a lifetime were on the point of being surrendered, he resolved to make one more journey. It was his final bid for immortality. He made it, and at last he stood at the goal of the centuries—the first and only man to reach the North Pole.

But though the North Pole has been conquered, the South Pole still preserves its secret. The Great Ice Barrier, which sent more than one of the early explorers home in dismay, has of late years lost some of its terrors, and modern methods have done much to bring success within reasonable distance. According to Captain Scott, 'the geographical difference between the work of the northern and the southern traveller is as great as the climatic, if not greater. With the exception of Nansen's and Peary's journeys into the interior of Greenland,' he goes on to say, 'the sledge journeys of the North

have almost invariably been performed over level, if not smooth, sea ice.' Turning to the South, he points out that the explorer's ship has been brought up by solid land or by some mighty wall resembling the Great Ice Barrier; to pass beyond his ship, the explorer must either travel over land or over great and ancient snow-fields which possess a similar surface. 'We have therefore,' he adds, 'this great geographical difference between the North and the South; the greater part of northern travelling has been, and will be, done on sea ice; but the greater part of southern travelling has been, and will be, done over land surfaces or what in this respect are their equivalents. A general comparison of the sledging conditions met with in the North and the South cannot be said, therefore, to be in favour of the latter, and it must be conceded that the Antarctic sledge traveller journeys under considerable relative disadvantages: he has to meet severer climatic conditions; he has to pull his sledges over heavier surfaces, and he is not likely to encounter fewer obstacles in his path. Hence it is probable that the distance recorded by the northern travellers will never be exceeded in the South.'

While the quest for the South Pole has never

charmed the imagination to anything like the same extent as has the long-continued struggle for the North Pole, there has been within recent years a wonderful increase of public interest in the doings of Antarctic explorers. As fresh light has fallen upon that obscure portion of the globe, and as explorers have journeyed farther over its frozen wastes, we have wakened up to the fact that the desolate South has something to tell us. A few years ago, Norden-skiold, the leader of the Swedish Antarctic Expedition, wrote these words: 'The misty dreams of olden times of the existence of an Antarctic continent are now beginning to assume fast form; but this new world is merely a mass of ice and snow through which project a few wind-swept peaks, and at whose edge lie small, naked patches of shore. But it has not always been thus. We have not only discovered innumerable fossils of the animal world that in former times lived in what is now the Antarctic Ocean, but we have also proved that numberless years ago—although in what, in geological respects, is a late epoch—there was here the seacoast of a land, not as now snow-clad, lashed by a thousand storms and with verdureless rocks, but a land clothed with luxuriant forest, a land on whose shores lived a rich animal

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world; although a remarkable fact is that this animal life, even then, consisted to a great extent of penguins. But these older penguins were very unlike those of the present day; they were giant-like forms of more than human size, and they were, most certainly, among the strangest creatures that ever lived on this earth. What possibilities are not opened by means of these discoveries, in knowledge of the history of the world's development? There has thus been a time when the Antarctic continent formed a bridge linking the three southern continents, and, from this now frozen land, America, Africa, and Australia probably received much of their existing animal and plant forms, ere cold and ice came to kill all that could not take refuge in the waters of the sea.'

These explorations into the ice-bound regions of the earth have done a little for the world's commerce and a great deal for its knowledge; but there are those who ask the question: Has it been worth while? Has not the price paid for the knowledge been too great? It is not easy to give an answer. Man is ever seeking after the unknowable, and there is no resting-place till the hidden things are made plain. In this eternal quest he is prepared to sacrifice life itself, and

surely the fortitude and heroism which have characterised the search for the Poles are, as one writer has put it, worth incomparably more than any results whatever that may be achieved by them.

With the discovery of the North Pole, however, the scientific mind is not satisfied, and if the South Pole should also yield up its secret there will still be much to learn of southern conditions and life. 'As long as we have this Holy Grail beckoning us in the North,' wrote Nansen some years ago, 'we are all of us apt to forget that it is scientific research which ought to be the sole object of all explorations. Still, an expedition which shall attain this goal of centuries must yield scientific results of great importance; but the greatest result without comparison will be that the North Pole will have been trodden by human foot, and that we will for ever get the quest for this mathematical point out of existence. Then the time for pure scientific exploration in the North will have to come.'

But with the purely scientific aspect of the subject this book is not concerned: its purpose is rather to sketch the many attempts that have been made to reach the Poles and to portray

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the wonderful heroism of the men who laid their all upon the altar of duty. And this is a story well worth the telling—a story of daring and endurance without a parallel in the history of mankind.

CHAPTER II.

THE BRAVE PIONEERS OF POLAR EXPLORATION.

THE desire to know and to conquer is as old as man himself. In the dawn of English history, when the good King Alfred sat upon the throne and drove back the invading Danes from these shores, the long, thrilling story of Arctic enterprise had its opening chapter written by the hand of the royal historian. Residing at the court of Alfred, about the year 890, was a Norwegian named Othar, and feeling, as he says himself, 'an inspiration and a desire to learn, to know, and to demonstrate how far the land stretched towards the north, and if there were any regions inhabited by man northward beyond the desert waste,' he sailed away on a voyage of geographical investigation, and on his return made a report of his enterprise to the king, who placed on record the results of the voyage. Thus, while Othar the Norwegian was the first to enter the Arctic sea, King Alfred of England was the earliest chronicler of Arctic achievement.

It is just possible that his example was quickly

followed by other daring Northmen, for the spirit of adventure was in their blood, and they loved the wild life of the rover; but almost a century elapses before the curtain is lifted on farther discovery. In the meantime, however, the adventurous Scandinavians were pushing farther afield, and between Norway and Iceland—which had been discovered in 861—a regular traffic had sprung up.

The discovery of Greenland about 982 or 983 by the bold Erikr Tanthi, better known as Eric the Red, who may be regarded as the pioneer of the Polar explorations of future generations, was not without its romantic interest. Convicted of manslaughter before the judicial assembly of Iceland, Eric the Red was sentenced to banishment for a term of years, but, as we learn from Sir John Richardson's story of *The Polar Regions*, he was not content to pass the time in idleness. Resolving to utilise his compulsory absence from his fatherland in the exploration of Gunibörn's Land, he 'prepared a vessel, and sailed with his followers from Sneefieldsjokel, the northern promontory of Faxe Bay, in one of the southern inlets of which the town of Reikiavik has been built. Holding a westerly course, he came in sight of the east coast of Greenland, along which he steered southwards,

looking for a habitable spot. Having spent three years in exploring the western coasts of Greenland, Erikr returned to Iceland, and made so favourable a report of the new country that in 985 or 986 he induced a large body of colonists to sail with him from Iceland in twenty-five ships. Half of the ill-fated fleet perished in the ice, but the remnant reached their destination, and a few years later all the habitable places of Greenland were occupied.'

Equally fortuitous was the achievement of another Icelandic ship in the year 1000, when, driven far southward out of her course, she reached a 'finely wooded country,' supposed to be Newfoundland, 'and brought back reports of a land which, because of its wild grapes, was called Vinland.'

As far as our knowledge goes, however, no serious attempt was made upon the secrets of the Arctic for the next four hundred years. During the brief reign of Richard III. of England, he personally interested himself in the expansion of trade, and sent ships to Iceland for purposes of discovery. A little later, when the restless spirit of the age was manifesting itself in voyages of exploration, there came to the court of Henry VII., in 1491, a Venetian named Giovanni Cabot, better known in England as John Cabot, whose

object was to enlist the support of the king on behalf of his seafaring enterprises, having already failed in a similar mission at the courts of Spain and Portugal. His appeal to England's king was not in vain, for Henry, who had already been disappointed in his efforts to secure the services of Columbus, granted, in 1496, letters-patent to John Cabot and his three sons, Lewis, Sebastian, and Sancto, to take possession, on behalf of England, of any unknown country that they might discover. 'Understanding,' says Sebastian, 'by reason of the sphere, that if I should sail by way of north-west I should by a shorter tract come into India, I there-upon caused the king to be advertised of my desire, who immediately commanded two caravels to be furnished with all things appertaining to the voyage.'

In their frail vessel, the *Matthew*, the adventurous John and Sebastian Cabot sailed from Bristol in 1497, and in June of the same year came within sight of what is supposed to have been Newfoundland, though some authorities adhere to the opinion that it was the coast of Labrador which was discovered. Along this coast they sailed for about three hundred leagues. Landing, they could discover no people, though the country was not without signs of habitation, and there they

planted on the soil the banners of England and of Venice. Returning to England, they poured into the ears of the delighted king the story of their success, and preparations were immediately begun for a second voyage across the Atlantic. In February 1498, Henry granted to Cabot special authority to obtain ships and volunteers, 'and theym convey and lede to the londe and iles of late founde by the seid John.' In the same year, this expedition, consisting of a fleet of five ships, sailed from Bristol, but never returned, and of its fate nothing was ever heard. It is certain, however, that Sebastian Cabot was not, on this occasion, a member of the exploring party, for we find him in England during later reigns supporting the cause of discovery, and attempting to realise an ambition inherited from his father—the finding of a 'new passage' to Cathay.

Before leaving this period, the enterprise of Portugal deserves a passing reference. After the voyages of Columbus a new stimulus was given to discovery, and prominent among those who set forth on investigation was a Portuguese navigator, John Vaz Costa Cortereal, who 'about the year 1463 or 1464 tried the passage to India by the west on a parallel far to the northward of that pursued

by Columbus.' The land of Newfoundland may perhaps have been seen on this voyage. Some years later, Gaspar Cortereal, a son of Costa, went in search of the North-west Passage, visiting Greenland, Labrador, and the river St Lawrence; and his brother Michael also voyaged round these coasts. Both of them perished in subsequent voyages, 'and a third brother who would have followed in search of them was prohibited from embarking by the King of Portugal.' The expeditions, however, were not without their value to Portugal, as they were the means of securing for that country a share in the rich Newfoundland fisheries.

King Henry VIII. was also a patron of seafaring adventure. The idea of a passage to India by way of the North Pole was suggested by Mr Robert Thorne, a merchant of Bristol, in 1527, and when the plan was placed before the king he was quick to act upon it, despatching in May of that year 'two faire ships well manned and victualed, having in them divers cunning men to seeke strange regions.' This expedition, consisting of two ships, the *Mary of Guildford* and the *Sampson*, was without any practical result, failing completely to accomplish the purpose for which it was sent out. The *Sampson*, it appears, was lost in a storm,

while the other vessel, though she touched at Newfoundland, added nothing to our knowledge of that country, and returned to England in about five months after her departure.

This unsuccessful and disastrous expedition appears to have had the effect of bringing to an end the royal interest in maritime exploration, for it is the only voyage of that character about which we know anything during the reign of Henry VIII. His son, Edward VI., however, assisted in reviving the spirit of discovery, and in promoting the trade development of his country along ocean routes hitherto untouched. It was under his auspices that, in 1553, a well-organised expedition sailed from England in the hope of finding a new passage to Cathay, which, as we have already seen, was one of the dreams of Sebastian Cabot's life. It was Cabot who planned and supervised this enterprise, though he did not accompany it. Fitted out by the Company of Merchant Adventurers, this expedition set sail from Deptford on May 10th, 'for the discovery of regions, dominions, islands, and places unknown,' which was, in fact, the purpose for which the company of merchants had been created.

The fleet consisted of three vessels under the command of Sir Hugh Willoughby in the *Bona*

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Esperanza, a vessel of 120 tons, carrying thirty-five men. The other ships were the *Edward Bonadventure*, 160 tons, carrying fifty men, and commanded by Richard Chancellor and Stephen Burrough, and the *Bona Confidentia*, with twenty-eight men. Towards the middle of July, the coast of Norway was sighted, and all went well for the next two months. Then, about the middle of September, a furious storm burst over the fleet; the ships were driven apart off the Lofoden Islands, the *Edward Bonadventure* parting company with the other two ships, which ultimately found a refuge in a harbour at the mouth of the river Arzina, in Russian Lapland. Their perils, however, were not by any means at an end. The winter was setting in with all its severity, and it was not long before Willoughby and his men were suffering the most acute hardships. Death at last came to release them from their sufferings and misfortunes, the commander, with the sixty-two men who accompanied him, perishing. The ships with the bodies of the crews were found in the following year by a party of Russian fishermen, and a search of Willoughby's vessel brought to light his journal, together with a will, showing that some of the mariners were alive in January 1554.

The third vessel of the expedition, the *Edward Bonadventure*, commanded by Chancellor, fared much better. After the storm which had separated her from the other ships had passed, Chancellor waited at Vardöhus, the rendezvous agreed upon, in the hope of the companion ships making their appearance; but when after a stay there of seven days there were no signs of the missing ships, the *Bonadventure* pushed on, sailing to Archangel in the White Sea, and thus by an accident discovering Russia. Hearing of the arrival of the Englishmen, the Tsar Ivan Vasilievitch immediately invited them to his court at Moscow, where they were treated with every hospitality, and where a treaty was concluded giving freedom to trade to English ships. In the following spring, Chancellor sailed for England, bearing with him a letter from the Tsar to Edward VI. His hopeful reports of what he had seen and heard in Russia led to the establishment soon afterwards of the Muscovy Company.

It was not long before the hardy seaman was again absent from England on a voyage of adventure. With a commission from Queen Mary for the opening up of commercial relations with Muscovy, and with instructions to 'use all ways and means

possible to learn how men may pass from Russia, either by land or by sea,' Chancellor sailed from England in 1555; and in the following year Stephen Burrough left in the *Searchthrift* in quest of a North-east Passage to the Indies. He reached Novaya Zemlya, which had been sighted by Willoughby three years earlier, and made the discovery of the Kara Strait and Vaigach Island. Chancellor reached Archangel in safety, and started on his homeward voyage in July 1556, having on board a Russian envoy. Off the north coast of Scotland the *Bonadventure* was wrecked, and while the Russian ambassador was, with great difficulty, saved from drowning, Chancellor and most of his crew perished.

The years immediately following witnessed considerable activity on the part of daring seamen. Martin Frobisher, after many years of disappointment and waiting, procured at length the necessary support to enable him to set forth on a voyage of discovery, and, in 1576, sailed northward from Greenwich. The first Englishman to attempt a North-west Passage to Cathay, his example was speedily followed by others. In his three voyages towards this passage the intrepid John Davis made important geographical discoveries. Leaving England

in the year 1585, he proceeded 'along the west side of Greenland, and then crossing an open sea to the north-westward, discovered land in latitude $66^{\circ} 40'$, giving names to the different parts of the coast which has since been denominated Cumberland Island. In the course of this voyage they met with a multitude of natives, whom they found to be a very tractable people and liberal in their mode of trafficking.' In the following year Davis made another voyage, but it was not so rich in discovery as the first, and his third voyage, a year later, was almost without any outstanding result.

Among the heroes of discovery belonging to this period, the name of William Barentz stands high, and 'amongst several expeditions sent out by the Dutch to explore a passage to India and China by the north-east, that of two ships under the pilotage of Barentz is the most memorable.' Sailing from Amsterdam in 1596, he discovered Spitzbergen, and thereafter the two ships pursued different courses. In his attempt to sail round Novaya Zemlya, Barentz became entangled in the ice, and as the vessel received considerable damage from the pressure, the little party of seventeen Dutchmen were compelled to leave it to its fate and seek, as best they could, some dwelling-place

in that desolate and frozen country. Building a large timber house on the shore, they crept into it for shelter, and throughout the long winter night endured with unflinching courage the trials of their unhappy condition. They were the first Europeans to winter in the Arctic regions, and, unprepared as they were for such an experience, they underwent a season of terrible hardship and suffering.

‘The journal of the proceedings of these poor people,’ we have been told, ‘during this cold, comfortless, dark and dreadful winter is intensely and painfully interesting. No murmuring escapes them in their hopeless and afflicted situation; but such a spirit of true piety and a tone of such mild and subdued resignation to Divine Providence breathe throughout the whole narrative, that it is impossible to peruse the simple tale of their sufferings and contemplate their forlorn situation, without the deepest emotion.’ In the following summer some of the party made their escape from their dismal surroundings in two open boats, and, ‘after a perilous and painful voyage of about a thousand miles, arrived in safety at Cola; but Barentz, with some others, was overcome by the severity of the climate and the extraordinary exertions which he

was obliged to make, and died.' About three centuries later, in 1871, relics of this expedition were discovered undisturbed, and are now in the Foreign Office at the Hague.

The fate of John Knight, who sailed in the *Hopewell*, in 1606, for the 'discovery of the Nor'west passage,' adds another chapter to the story of disaster attending these expeditions into the frozen seas. Surprised on the coast of Labrador by a band of wild Eskimos, Knight himself, together with his mate and three of his men, was slain, and the remainder of the crew, 'after patching up the vessel, which had been shattered in a storm, reached England after many hardships.'

But neither failure nor disaster prevented the fitting out of fresh expeditions. In 1607, Henry Hudson, a bold and skilful navigator, was commissioned by the Muscovy Company to sail across the North Pole to Japan, and on 1st May, in the *Hopewell*, a vessel of 80 tons, he left Greenwich on this hazardous and impossible enterprise. Though doomed to failure, even before it began, the voyage was not altogether fruitless. Hudson found the Polar Sea impassable, and was compelled to return to England, but he brought back with him such a favourable report of whales and sea-horses in these

frozen seas as led to the foundation of a great whaling industry, so that the commercial results may be said to have more than counterbalanced the failure of any achievement along the line of discovery. In the following year Hudson, while in the service of the Dutch, was blocked by the ice in attempting to find a passage between Spitzbergen and Novaya Zemlya. Again bound on exploration, he discovered, in 1609, the great river which bears his name. On this occasion, still in the service of the Dutch merchants, Hudson was bound for China by way of the North Cape; but 'solid pack-ice and the open mutiny of the crew decided him to turn back, and he steered south-west. It is evident that he felt free to carry out his own plans and reach China by another route. His owners' plans had failed, and, while his plan might fail, his success would justify his action. Hudson's decision was almost as bold as that of Columbus, for, while he had no doubt some knowledge of the lands to the west, he evidently had no conception of the shape or size of North America nor of the width of the Pacific.'

Hudson's next enterprise proved to be his last. In 1610, Sir John Wolstenholme and Sir Dudley Digges employed the *Discovery*, a vessel of 55 tons,

to search for the North-west Passage, and Hudson was appointed to the command. It was on this voyage that he discovered the bay which is called by his name. There the ship was hauled ashore in a convenient situation, and captain and crew settled down to winter in that inhospitable region. It was not long before the provisions ran short, and the ignorant, cowardly crew, alarmed at the Arctic cold and gathering ice, rose in mutiny. In all the records of Polar exploration there is nothing to compare with their barbarous behaviour. They resolved to get rid of their great captain, and putting him in a boat, with his son, a boy of seven, and some invalid sailors, they cast the frail vessel with its human burden adrift on the vast waters of Hudson Bay—to be borne along till death, in what form no one knows, came to end their fears and their sufferings.

English and Dutch vessels about this period began to visit the seas round Spitzbergen with greater regularity, in the pursuit of trade as well as of discovery, and in this way the fund of information with regard to the conditions prevailing in these ice-bound regions was constantly growing, in addition to the discoveries which continued to be made from time to time. The voyage of William Baffin, in 1616, was remarkable on account of its

fruitful results. Advancing farther to the north-west than any of his predecessors, he failed to find the much-desired passage, but he discovered the great bay which is known by his name, and he also discovered and named Smith Sound and Lancaster Sound. His observations were at first regarded with considerable doubt, but were abundantly confirmed by later navigators, and were used by the Franklin expedition.

Other navigators of this period were Captain Luke Foxe, or, as he quaintly called himself, 'North-west Foxe,' who sailed from Deptford, in May 1631, in the *Charles*, a pinnace of 70 tons; and Captain James, of Bristol, who commanded the *Maria*. These two vessels meeting at sea, the captain of the latter gave 'a doleful account of his mishaps on the voyage and the sufferings he endured during a winter in the harbour which he discovered in latitude 52° N.,' which was the only discovery he made, and was of 'some importance as it became the winter harbour of such Hudson Bay ships as are cleared too late in the season to return through the straits.' Another unsuccessful competitor in the search for the North-east Passage was Captain James Wood, who, in 1676, attempted the discovery by way of Novaya Zemlya.

The explorations conducted by the Hudson's Bay Company were attended with failure as well as success, while the tragic element, so prominent, as we have seen, in the earlier expeditions, was unfortunately not absent. In 1670, King Charles II. granted a charter to Prince Rupert and several other noble personages, giving them and their successors the exclusive right to the territories drained by rivers falling into Hudson Bay and the trade thereof on certain conditions, one of which was the promotion of geographical discovery. Accordingly expeditions were inaugurated, and one of these, undertaken in 1719, was entrusted to Mr James Knight, 'ex-governor of several of their factories, described as being most zealous in the cause of discovery, but whose age had reached the mature period of eighty years.' This enterprise, which sailed from Gravesend in the *Albany* and the *Discovery* in June of the above year, was well supplied with provisions. Everything seemed favourable for a successful voyage; but the vessels mysteriously disappeared from sight, and no message came from them to throw any light upon their fate. Many years passed by before the mystery was cleared up, and then the story that was told was one of extreme pathos.

Sir John Richardson tells us that in 1767, in the vicinity of Marble Island, the wrecks of these ships were found in five fathoms of water. In the summer of 1769, fifty years after the catastrophe, Samuel Hearne visited Marble Island, which he describes as a barren rock destitute of every kind of herbage, except moss and grass, lying north sixteen miles from the mainland, which had a like character. While prosecuting the whale fishery in that quarter he met several Eskimos, greatly advanced in years, and with the aid of one of their countrymen, employed in the company's service as an interpreter, he extracted from them the following account:

‘When the vessels arrived it was very late in the fall [autumn], and the largest received much damage in getting into the harbour. Immediately afterwards, the white men began to build their house, their numbers at that time being about fifty. Next summer the Eskimos paid them another visit, and found their numbers greatly reduced and the survivors unhealthy. Their carpenters were then at work on a boat. At the beginning of the second winter only twenty were living. That winter the Eskimos built their houses on the opposite side of the harbour, and frequently supplied the English with whale's blubber, seal's



Looked earnestly to the south and east, and afterwards sat down together and wept bitterly.

flesh, train-oil, and such other provisions as they could spare. The Eskimos left in the spring, and on returning later, in the summer of 1721, found only five Englishmen alive, who were in such distress for provisions that they ate eagerly of the seal's flesh and whale's blubber quite raw as they purchased it. This diet so disordered them that three died within a few days, and the other two, though extremely weak, made a shift to bury them. The two survived the others many days, and frequently went to the top of a rock, and looked earnestly to the south and east, and afterwards sat down together and wept bitterly. At length one of those melancholy men died, and the other, in attempting to dig a grave for his companion, fell down and died also.' When Hearne was there the skulls of the two men were found near the house.

It is, indeed, a grim and tragic story, and after such a disastrous termination to Knight's voyage one is not surprised to learn that for a long time the Hudson's Bay Company had a dislike to Polar expeditions.

From the very beginning of man's entrance into the Polar regions, as we have seen from the foregoing narrative, they have claimed their heavy toll of lives and ships; but the disasters which followed one another with such painful persistency did

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nothing to curb the ambitions of the daring seamen who felt the call of the Frozen North and hurried away in answer to its summons. In their frail and tiny vessels they fearlessly looked death in the face, for they were of the stuff of which heroes are made. Captain Scoresby, who himself made voyages into the Arctic regions and reached a high latitude, wrote in the early part of last century that 'the adventurous spirit manifested by our early navigators in performing such hazardous voyages in small barks, in which we should be scrupulous of trusting ourselves across the German Ocean, is calculated to strike us with surprise and admiration, while the correctness of their investigations gives us a high opinion of their perseverance and talent. The famous voyage of Baffin, in which the bay bearing his name was discovered, was performed in a vessel of only 55 tons' burden; that of Hudson, in which also the bay called by his name was first navigated, in the very same vessel; and the voyages of Davis chiefly in vessels of 50, 35, and 10 tons' burden.'

Another characteristic of these brave seamen calls forth Scoresby's commendation. 'In perusing the voyages of our old navigators,' he says, 'it is particularly gratifying to those who consider religion as the chief business of this life, to observe

the strain of piety and dependence upon Divine Providence which runs through almost every narrative. Their honest and laudable acknowledgments of a particular interference of the Almighty, working out deliverance for them in times of difficulty and danger, and their frequent declarations expressive of their reliance upon Providence for assistance and protection in their adventurous undertakings, are worthy of our imitation. Thus while our modern voyagers are much in the habit of attributing their most remarkable deliverances to "luck" and "chance" and "fortune," those of old evidenced certainly a more Christian-like feeling under such circumstances, by referring their deliverances to that Great Being from whom alone every good thing must be derived.'

But even the men of Scoresby's time were not so forgetful of acknowledging Divine guidance as these words suggest. Franklin, again and again, is found returning thanks to God, an example which is followed by others of the same period, while in our own time a noteworthy example may be given. Early in the year 1909, Lieutenant Shackleton, who since then has received the honour of knighthood, returned from his expedition to the South Pole, having surpassed the records of all his

predecessors to that region, and at a banquet in London he used these words: 'In this expedition we had miraculous escapes. We had moments when all seemed dark and black in front of us, and at such times we ascribed our safe progress through those perils to a Power greater than our own. No amount of leadership could have helped us as we were helped when we knew not what the next day would bring to us. We believed in that higher Power down South, and it is only right to say that we believe in it now that we are safe back in the old country.'

Scoresby was a close observer in other directions, and he declared that 'whatever may be our opinion of the accounts brought forward by some parties to prove the occasional accessibility of the 83rd or 84th parallel of north latitude, of this we may be assured that the opinion of an open sea round the Pole is altogether chimerical.' That assertion has since been abundantly proved, and we know now that the 'open sea' so long and so persistently sought after can never be found. But with our greater knowledge we do not forget the dauntless men who led the way into the desolate wastes of snow and ice, and as long as history continues to be written their great deeds will never die.

CHAPTER III.

THE LONG SEARCH FOR THE NORTH-WEST PASSAGE.

THE magnetic spell of the Arctic regions continued to exert its influence over the men who sailed in ships and went down into the great waters. The call of the North was in their ears and the fire of adventure in their blood. To penetrate into the unknown, to read the riddle of a passage through the ice, to know the secret that was locked up in the bosom of the frozen seas, to triumph over Nature's barriers—these were the impelling forces that lured men to dare and to do, and the failure of one was but an added incentive to another to conquer or to die.

Following close upon the enterprises mentioned in the preceding chapter were the unsuccessful voyages of Scroggs and Middleton, the former in 1722, and the latter in 1741; and no better success attended the efforts of William Moor and Francis Smith in 1746, or Samuel Hearne in 1769, in their endeavours to earn the reward of £20,000 offered by the British Government, in 1742, for the

discovery of a route to the Pacific through Hudson Strait. Fruitful in many respects were the researches of Vitus Bering, a Dane, who, after distinguishing himself in the naval service of Russia, was commissioned by Peter the Great, the enlightened monarch who was ambitious of seeing his country a mighty power on the sea, to proceed, in 1725, in charge of an exploring expedition. Sailing three years later, after every preparation had been made for the undertaking, Bering discovered the strait between America and Asia, proving thereby that these continents were not joined together, as was then commonly supposed to be the case. In 1741, Bering went on a further voyage of exploration along the north coast of America; but, like so many of his predecessors into northern latitudes, he was overtaken by disaster. His ship was wrecked on Bering Island, and there the great seaman died in December of that year.

Earlier even than some of these daring voyages was the bold dash of a Cossack, which is described by Muller in his *Voyages from Asia to America*. This Cossack is said to have actually performed a journey of about 800 miles in a sledge drawn by dogs, across a surface of ice lying to the northward of the Russian dominions, which sufficiently

established the practicability of a journey across the ice to the Pole, which, we shall presently see, was attempted by Parry after his efforts to find a clear passage of water had failed, and has been adopted by later explorers as the only means of reaching the desired latitude.

Alexei Markoff, the hero of this adventure, was sent to explore the frozen ocean, in the summer of the year 1714, by the order of the Russian government; but finding the sea so crowded with ice that he was unable to make any progress in discovery, he formed the design of travelling in sledges, during the winter or spring of the year, over the ice, which might then be expected to be firm and compact. Accordingly, the narrative continues, he prepared several sledges similar to those used in his country, drawn by dogs, and accompanied by eight persons he set out on the 10th of March from the mouth of the Jana, in latitude $70^{\circ}30'$, and longitude about 138° east. He proceeded for seven days northward, as fast as his dogs could draw, until his progress was impeded about the 78th degree of latitude by the ice elevated into prodigious mountains. This prevented his further advance; at the same time, falling short of provisions for his dogs, his return was effected with

difficulty; several of his dogs died for want of food and were given to the others for their support. On 3rd April he arrived at Ust-Jauskoe Simowie, the place from which he had started, after an absence of twenty-four days; during which time he appears to have travelled about 800 miles.

The early years of the nineteenth century in England witnessed a great revival of interest in Polar research, and were remarkable for the numerous expeditions that sailed to the Frozen North. It must be remembered, however, that many of these were prompted by the humane desire to rescue Sir John Franklin and his crews who were locked up in the ice out of the reach of all communication and help. Franklin is the great figure of Arctic exploration in the first half of last century, and as his deeds dominated all others of that period, and roused the whole world, as nothing had ever done before, to a new concern in the wonderful land of snow and ice that had proved the grave of so many brave men, they deserve to be treated separately.

Much of the awakened interest in the search for the North-west Passage was due to Captain Scoresby, the able and scientific master of a whaler, who published his account of the Greenland seas

and drew the attention of all Europe to that quarter, and also to Sir John Borrow, Secretary of the Admiralty, who 'by his writings and personal influence roused the British Government to undertake a new series of enterprises on a scale commensurate with improvements in shipbuilding and in the art of navigation.' Four stout vessels were 'selected and strengthened to resist the shocks and pressure of the ice by diagonal timbers and double planking in a manner which had never been attempted before.' Of these, two, the *Dorothea*, commanded by Captain David Buchan, and the *Trent* by Lieutenant John Franklin, sailed in 1818, with instructions to proceed northwards by way of Spitzbergen and to endeavour to cross the Polar Sea; while the other two, the *Isabella*, under the command of Captain John Ross, and the *Alexander*, commanded by William Edward Parry, were appointed to perform their voyage of discovery through Davis Straits. Ross and Parry, as a result of these explorations, were able to confirm the accuracy of the observations made two hundred years before by Baffin, which, as we saw in the preceding chapter, were at the time received with considerable doubt, and they named Melville Bay, Capes Isabella and Alexander, and other points.

The following year saw Parry off again to the north in command of the *Hecla* and the *Griper*, and penetrating to $113^{\circ} 54' 53''$ W. he became entitled to the reward of £5000 which had been offered by Parliament. Sailing once more in May 1821, with the *Fury* and the *Hecla*, under instructions to proceed towards or into Hudson Strait, to penetrate to the westward through that strait until he should reach some portion of the coast and the continent of America, the object being to discover a way westward from the Atlantic into the Pacific, Parry reached Hudson Strait in the following July and passed into Repulse Bay, from which no passage to the west could be found. Under these circumstances it was decided to winter near Lyon's Inlet, and there the ships remained till July of the following year. After encountering many dangers and difficulties, the expedition arrived at a strait to which Parry gave the name of the *Fury* and *Hecla*, and which he believed to be an opening into the Polar Sea. Winter again found the vessels in these rigid quarters, and for a second time the expedition was frozen up. When summer came, the explorers were able to find a passage out, and reached England towards the end of 1823. Still once again obeying the call of the north, Parry set

out in May 1824, with the same ships. This time he was less fortunate. In a great storm the *Fury* was abandoned, and only the *Hecla* returned to England.

Whatever else these expeditions may have accomplished, they had demonstrated beyond all doubt that the dream of sailing direct to the North Pole must for ever be given up, as the sea, blocked with eternal ice, offered no passage that led to the desired goal. Therefore, after a certain point had been reached by water, further progress over the ice must be made by means of sledges. Convinced of the practicability of such a plan, Parry put it into execution in 1827, inaugurating, by so doing, a new era in Arctic exploration, and proving the advantage of this mode of travelling. Sailing to Spitzbergen in the *Hecla*, Parry started from the north end of the island with two flat-bottomed boats on runners to begin his wonderful journey to the Pole. Each boat carried fourteen men, and in crossing the ice the commander preferred to travel by night rather than by day. Sailing over the water for 200 miles, the boats were then dragged over ice-floes for nearly a hundred miles, a feat that involved considerable labour and hardship, for the ice was rough in many places and soft and tender in others. Undaunted by these difficulties,

however, the expedition pushed ahead, attaining at last $82^{\circ} 40' 30''$ of northern latitude, the highest point hitherto reached by man, and one which, for a long time to come, was to remain the 'farthest north.' Parry would have gone much farther had it not been 'that the current which set continuously to the south carried back the boats during the hours necessarily allotted to the repose of the crews, and the daily advance, notwithstanding great exertion, was consequently small.' For his services to Arctic exploration Parry received the honour of knighthood in 1829.

In the years 1829-33, Captain John Ross (afterwards Sir John Ross), being laudably desirous, as Sir John Richardson expresses it, of obliterating the reproach of former failures by some worthy achievement, and having, through the munificence of Sir Felix Booth, Bart., been provided with funds for fitting out a vessel named the *Victory*, of 150 tons, sailed in her with the intention of seeking a passage through Regent's Inlet. The expedition was so long absent from England that the gravest fears of its safety were entertained; Ross and his men were supposed to have shared the fate that had overtaken other intrepid voyagers, and Sir George Back followed in the route of the enterprise

with the object either of rendering assistance or of learning what had happened to it. Happily, disaster had been averted, though the expedition had not been without its accidents and sufferings. For four long, weary years the *Victory* remained in the grip of the ice, and at last it had to be abandoned on Fury Beach, where the provisions stored up by Parry proved of the greatest value and assistance.

The long imprisonment came to an end in 1833, the party escaping in their boats and reaching a whaler in Lancaster Sound. The protracted period spent in Regent's Inlet had not, however, been without its occupation, Sir John Ross devoting himself to a careful survey of the inlet surrounding his winter-quarters; to the lower part of the inlet he gave the name of the Gulf of Boothia. Another important result of this expedition was the discovery by Lieutenant (afterwards Sir) James Clark Ross of the North Magnetic Pole. A nephew of Sir John Ross, he possessed all the qualities of the daring and successful explorer, and with his uncle, and also in the company of Parry, made five voyages into the Arctic circle.

Leaving Liverpool in February 1825, Sir John Richardson and Sir George Back, men of experi-

ence and ability in Arctic research, arrived at Fort Enterprise on 15th July, and descending the Mackenzie River, explored the coast east and west, returning home in September 1827. Other voyages were those of Dease and Simpson, two officers of the Hudson's Bay Company, who 'surveyed, in 1839, the remainder of the western coast which had been left by Franklin,' and of Dr John Rae, who, in 1846, on behalf of the Hudson's Bay Company, successfully surveyed the unexplored portion of the Arctic coast at the north-eastern angle of the American continent.

Future chapters will reveal to us in greater detail the sufferings and hardships endured by the fearless men who ventured into the regions of everlasting snow and ice; but it may not be inappropriate here, and it may help us to better understand the courage and fortitude involved in these explorations, if we glance for a little at some of the remarkable effects of cold related in the journals of Polar navigators. Captain Scoresby, himself, as we have already seen, a scientist and navigator of considerable repute, has incorporated some of these into his story of the Arctic regions, from which I venture to make a few extracts. Captain James, he tells us, when wintering in

Hudson Bay, latitude 52° north, experienced such cold, that, in the month of December, many of the sailors had their noses, cheeks, and fingers frozen as white as paper. Ellis, who wintered in the same region, latitude $57^{\circ} 30'$, found, by the 3rd of November, bottled beer, though wrapped in tow, and placed near a good, constant fire, frozen solid. Many of the sailors had their faces, ears, and toes frozen; iron adhered to their fingers; glasses used in drinking stuck to their mouths, and sometimes removed the skin from the lips or tongue; and a sailor, who inadvertently used his finger for stopping a spirit-bottle in place of a cork, while removing it from the house to his tent, had his finger fast frozen in the bottle, in consequence of which a part of it was obliged to be taken off to avoid mortification. A Hamburg whaler, in the year 1769, was exposed to great danger. The effect of the frost was such that the seams in the ship's sides cracked with a noise resembling the report of a pistol. These openings at first rendered the vessel very leaky, but after she got free from the ice, and into a milder climate, they again closed.

In the interesting narrative of Pelham, Scoresby goes on to say, of the preservation of eight seamen who were accidentally left in Spitzbergen, in the

year 1630, and wintered there, are some remarks on the effects of cold. The sea of the bay, where they took up their abode, froze over on the 10th of October. After the commencement of the new year, the frost became most intense; it raised blisters in their flesh as if they had been burned with fire, and if they touched iron at such times it would stick to their fingers like bird-lime. Sometimes when they went out of doors to procure water, they were seized in such a way by the cold that their flesh felt as sore as if they had been cruelly beaten.

The effects of cold at Disco, experienced by M. Paul Egedé, on the 7th January 1738, and recorded by David Crantz in his history of Greenland, are too striking to be omitted. 'The ice and hoar-frost,' says Egedé, 'reach through the chimney to the store's mouth without being thawed by the fire in the daytime. Over the chimney is an arch of frost, with little holes through which the smoke discharges itself. The doors and walls are as if they were plastered over with frost, and, what is scarcely credible, beds are often frozen to the bedsteads. The linen is frozen in the drawers, the upper eider-down bed and the pillows are quite stiff with frost an inch thick, from the breath.'

The narrative of Sir John Franklin also abounds in striking examples. He tells, for example, that one evening 'we found the mercury of our thermometer had sunk into the bulb and was frozen. It arose again into the tube on being held to the fire, but quickly redescended into the bulb on being removed into the air. We could not, therefore, ascertain by it the temperature of the atmosphere, either then or during our journey.' He tells again that 'a thermometer hung in our bedrooms at the distance of sixteen feet from the fire, but exposed to its direct radiation, stood even in the daytime at 15° below zero, and was observed more than once, previous to the kindling of the fire in the morning to be as low as 40° below zero.' But even a more astonishing example of the effect of the cold is given in the same narrative. Fish that had been frozen alive recovered their animation when thawed before the fire, Franklin instancing the case of a carp which 'recovered so far as to leap about with much vigour after it had been frozen for three hours.'

Other peculiarities of these regions may be noted in passing. To return to Scoresby's engrossing story, he says that scurvy becomes a very alarming disease, 'and many individuals have perished by it

who have attempted to winter in Spitzbergen and neighbouring countries.' Sudden storms have also to be guarded against. 'My father,' Scoresby goes on to say, 'when commanding the ship *Henrietta*, was, on one occasion, navigating the Greenland Sea during a tedious gale of wind, accompanied by snowy weather. As the wind began to abate, a ship appeared in sight under all sails, and presently came up with the *Henrietta*. The master hailed and inquired what had happened that my father's ship was under close-reefed top-sail in such moderate weather. On being told that a storm had just subsided, he declared that he knew nothing of it; he observed, indeed, a swell, and noticed a black cloud ahead of his ship that seemed to advance before him, but he had had fine weather and light winds the whole day.'

The same author gives another singular example of the sudden gusts and furious currents of wind which occur at some elevation in the atmosphere. 'On a particularly fine day,' he tells us, 'my father, having landed on the northern part of Charles's Island, incited by the same curiosity which led him on shore, ascended, though not without great difficulty and fatigue, a considerable elevation, the summit of which was not broader than a common

table, and which shelved on one side as steep as the roof of a house, and on the other formed a mural precipice. Engaged in admiring the extensive prospect from an eminence of about 2000 feet, he scarcely noticed the advance of a very small cloud. Its rapid approach and peculiar form (having somewhat the appearance of a hand) at length excited his attention, and when it reached the place where he was seated in a calm air, a torrent of wind assailed him with such violence that he was obliged to throw himself on his body and stick his hands and feet into the snow to prevent himself from being hurled over the tremendous slope which threatened his instant destruction. The cloud having passed, the air, to his great satisfaction, became calm, when he immediately descended by sliding down the surface of snow, and in a few minutes reached the base of the mountain in safety.'

When one considers the terrible conditions that exist around the Pole, and the daily battle that must be fought against death in so many forms, the wonder is not that those frigid regions have claimed so many of our heroes; the marvel will ever be that men have lived through it all and come back to tell the tale.

CHAPTER IV.

SIR JOHN FRANKLIN IN THE FROZEN NORTH.

THE central and dominating figure in Arctic exploration in the first half of the nineteenth century, Sir John Franklin devoted himself to the cause of research with a passion of enthusiasm that ended only with his tragic death in the icy wilderness of the Frozen North. Franklin could have been forgiven if his early experiences amid the awful terrors of that frigid region had for ever quenched his spirit of adventure and satisfied his ambitions to conquer the secrets around the Pole; but the easy and the pleasant path had for him no attraction; the fever of conquest was in his blood, and when the Magic North, with its irresistible and fascinating dangers, stretched out to him its beckoning hand, he answered the call and set sail for the Polar Sea.

There is nothing in all the history of Arctic research to compare with Franklin's own story of the first expedition under his command. Told though it is with a modesty and a self-restraint

that reveals something of the true greatness of the man, it yet grips us with a strange power, and while it charms us with its beautiful simplicity, it also makes us realise the awe and the grandeur and the terrible agonies locked up in the breast of the Arctic circle. No fairy romance ever penned can rival this vivid and picturesque narrative of human endurance and suffering. Heroes all, Franklin and his men battled with patience and courage against a succession of gigantic difficulties, and most of them fought their way through when death time and again seemed the only avenue of escape.

Before undertaking this remarkable voyage, Franklin had proved himself in the service of the navy. Born in 1786, he was intended by his parents for the Church; but his own inclinations were towards the sea, and after a voyage in a merchant vessel had failed to change his mind, he was permitted to have his way, and a post was found for him in the Royal Navy. His career as an Arctic explorer began in the year 1818, when, as we saw in the last chapter, he accompanied Captain Buchan into the Polar Sea with the object of discovering the North Pole; but in consequence of an accident to one of the two vessels forming the expedition, a return was made

to England before anything in the nature of discovery had been accomplished.

Franklin's opportunity came in the following year. The Government having determined upon sending an expedition from the shores of Hudson Bay by land, to explore the northern coast of America from the mouth of the Coppermine River to the eastward, Captain Franklin, as he then was, had, as he himself expressed it, 'the honour to be appointed to the service by Earl Bathurst,' and sailed from Gravesend on 22nd May 1819, in the *Prince of Wales*, a ship of the Hudson's Bay Company. The small party included Dr Richardson, an eminent scientist, and Lieutenant Back, who had already served with Franklin in the *Trent*, both of whom were to render magnificent service to the cause of Arctic exploration and to receive in recognition of their labours the honour of knighthood.

Arriving at York Factory in Hudson Bay on 30th August, the expedition set out on 9th September, with portable boats or canoes, the intention being to follow the line of rivers and lakes, beginning with the Nelson and Saskatchewan, and ending with the Elk, Slave, and Coppermine. Reaching Cumberland House, a long-established station on the Saskatchewan, Franklin received his

first check. According to the arrangements made in advance, he expected to find at this stage in his journey sufficient supplies, together with guides and hunters; but disagreements between the rival trading companies had interfered with the plans, and thus the expedition was faced with a grave difficulty at the very outset. There was nothing for it but to form new plans to fit in with the disappointing circumstances. As further progress at that season was impossible, it was decided that the party, with Dr Richardson, should pass the winter at Cumberland House, while Franklin, accompanied by Back and a seaman of the name of Hepburn, should push northwards to Fort Chipewyan, on the shore of Lake Athabasca, a distance of 857 miles. Leaving Cumberland House in December with two small dog-sleighs and with limited supplies for the journey, they travelled through the worst part of the winter, and after braving many dangers and enduring fearful sufferings, arrived at their destination on 26th March 1820.

At this point they were joined some months later by the remainder of the expedition, which had hurried on as soon as the break-up of the ice in the spring had left a passage that could be navigated by the boats. The expedition was then

organised, and, accompanied by voyageurs and interpreters, left Fort Chipewyan on 18th July for Fort Providence, situated on the northern side of the Great Slave Lake.

It was a brave, though disappointed, party that set out from Fort Chipewyan. The two trading companies which disputed the territory and whose rivalry kept them practically on the verge of war, had still failed to deliver supplies to the expedition, and there was little more than one day's provisions in hand when the party started on its weary march. The supply of powder, too, was very scanty, but what they had was put to the best use, and, thanks in large measure to the skill of the half-breeds, the hunting and fishing yielded sufficient food to satisfy the pangs of hunger.

On 2nd August they left Fort Providence, the party, including the Canadian voyageurs and interpreters, consisting of twenty-eight men, besides three women and three children. In addition to the three canoes, a smaller one was taken to convey the women. 'We were all in high spirits,' says the record of the brave commander, 'being heartily glad that the time had at length arrived when our course was to be directed towards the Coppermine River and through a line of country

which had not been previously visited by any European.' Soon after starting from the Fort, the expedition was joined by a large party of Indian hunters under a chief, Akaitcho.

The hardships of the journey began before the party had travelled any distance. Fort Providence was but a few days behind them when 'the issue of dried meat for breakfast this morning had exhausted all our stock; and no other provision remained but the portable soups, and a few pounds of preserved meat.' On the recommendation of Akaitcho, the hunters were furnished with ammunition and sent on ahead in the hope of finding reindeer, while many of the Indians, being also in distress for food, started on at a quicker pace than the expedition could travel.

The story of these trying days makes infinitely sad reading. The spectre of starvation was constantly before the travellers. Nets were cast into the river only to be drawn out empty, 'an untoward circumstance that discouraged our voyageurs very much; and they complained of not being able to support the fatigue to which they were daily exposed on their present scanty fare.' Entries such as these are to be found in Franklin's diary:

'11th August. Having caught sufficient trout,

white fish and carp yesterday and this morning to afford the party two hearty meals, and the men being recovered of their fatigue, we proceeded on our journey across the Upper Carp Portage, and embarked on the lake of that name, where we had the gratification of paddling ten miles.'

'13th August: We caught two fish this morning, but they were small and furnished but a scanty breakfast for the party. Whilst this meal was preparing, our Canadian voyageurs who had been for some days past murmuring at their meagre diet, and striving to get the whole of our little provision to consume at once, broke out into open discontent, and several of them threatened they would not proceed forward unless more food was given to them.'

By this time, however, they were approaching the fires of their hunters, and they were more hopeful of relief. Soon the eagerly desired food from the hunters came to appease the cravings of hunger, and for a little while the advance was continued under happier conditions. But another trial was at hand. Winter set in much earlier than usual. By the 25th of August the pools were already frozen over. 'Akaitcho arrived with his party, and we were cruelly disappointed at finding they had

stored only fifteen reindeer for us. St Germain informed us that having heard of the death of the chief's brother-in-law they had spent some days in bewailing his loss, instead of hunting. We learned also that the decease of this man had caused another party, which had been sent by Wentzel to prepare provisions for us on the banks of the Coppermine River, to remove to the shores of the Great Slave Lake, distant from our proposed route.'

But 'mortifying as these circumstances were, they produced less painful sensations than were experienced in the evening by the refusal of Akaitcho to accompany us in our proposed descent of the Coppermine River. When Mr Wentzel, by my direction, communicated to him my intention of proceeding at once on that service, he desired a conference with me upon the subject, which being immediately granted, he began by stating that the very attempt would be rash and dangerous, as the weather was cold, the leaves were falling, some geese had passed southward, and the winter would shortly set in, and when he considered the lives of all who went on such a journey would be forfeited, he neither would go himself nor permit his hunters to accompany us.'

Being anxious at all hazards to push on to the

sea and establish himself for the winter at the mouth of the Coppermine, Franklin argued with Akaitcho, who appeared hurt that his counsel should not be accepted, and replied: 'Well, I have said everything I can urge to dissuade you from going on this service, on which, it seems, you wish to sacrifice your own lives as well as the Indians' who might attend you. However, if, after all I have said, you are determined to go, some of my young men shall join the party, because it shall not be said that we permitted you to die alone after having brought you hither; but, from the moment they embark in the canoes, I and my relatives shall lament them as dead.'

In the face of such a remonstrance there was no alternative but to abandon his plans for the time being and settle down as best they could for the winter. For ten months the party remained in huts at a place which came to be called Fort Enterprise. It was a long and a weary wait, but patiently endured. The provisions running short, the position of the party threatened to become exceedingly precarious, but Lieutenant Back 'volunteered to go and make the necessary arrangements for transporting the stores we expected from Cumberland House, and endeavour to obtain some

additional supplies from the establishments at Slave Lake. If any accident should have prevented the arrival of our stores, and the establishments at Moose-Deer Island should be unable to supply the deficiency, he was, if he found himself equal to the task, to proceed to Chipewyan.'

This long journey across the ice and snow was not the only deed of heroism during this trying expedition; but if it had been, it would still have been sufficient to make the expedition memorable. Thinking nothing of the tremendous difficulties and dangers that lay ahead, and having only in view the bringing of relief to his famishing comrades, this brave man, accompanied by Mr Wentzel and two Canadians, and two hunters with their wives, left Fort Enterprise in the depth of winter, their route lying across the barren hills. Back's own account of his hazardous journey is of thrilling interest. Owing to the slow progress made by the wives of the hunters, they were able, on the first day, to travel only seven and a half miles. On the third day the weather was so extremely hazy that they could not see ten yards in front of them, and the hunters feared they should lose the track of the route. Towards the evening it became so thick that they could not proceed.

They continued their journey, sometimes on frozen lakes, and at other times on high craggy rocks, and when on the lakes they were much impeded by different parts which were not frozen. It was the 18th of October when Back and his companions left Fort Enterprise, and on the 27th they 'crossed two lakes and performed a circuitous route, frequently crossing high hills to avoid those lakes which were not frozen; during the day one of the women made a hole through the ice and caught a fine pike, which she gave to us; the Indians would not partake of it, from the idea (as we afterwards learnt) that we should not have sufficient for ourselves. "We are accustomed to starve," said they, "but you are not."

Remaining for some time at Fort Providence until the Great Slave Lake should be frozen, they set out on the lake on 8th December, being provided with dogs and sledges. It was exceedingly cold, and they were frequently interrupted by large pieces of ice which had been thrown up by the violence of the waves during the progress of congelation. Next day the wind was so keen that the men proposed conveying Back in a sledge that he might be the less exposed, and to this, after some hesitation, he consented. Accordingly,

a reindeer skin and a blanket were laid along the sledge, and in these he was wrapped tight up to the chin, and lashed to the vehicle, with just sufficient play left for his head to perceive when he was about to be upset on some rough projecting piece of ice. In attempting to cross a large opening in the ice, the dogs fell into the water, and were saved with difficulty. 'The poor animals suffered dreadfully from the cold, and narrowly escaped being frozen to death. We had quickened our pace towards the close of the day, but could not get sight of the land; and it was not till the sun had set that we perceived it about four miles to our left, which obliged us to turn back and head the wind. It was then so cold that two of the party were frozen almost immediately about the face and ears. I escaped from having the good fortune to possess a pair of gloves made of rabbit's-skin, with which I kept constantly chafing the places which began to be affected. At 6 P.M. we arrived at the fishing huts near Stoney Island, and remained there the night. The Canadians were not a little surprised at seeing us, whom they had already given up for lost—nor less so at the manner by which we had come—for they all affirmed that the lake

near them was quite free from ice the day before.'

Finding that a sufficiency of food could not be provided at Moose-Deer Island, Back determined to proceed to the Athabasca Lake and 'ascertain the inclinations of the gentlemen there.' On the route to Fort Chipewyan the snow was so deep that the dogs were obliged to stop every ten minutes to rest themselves, 'and the weather was so cold that we were compelled to run to keep ourselves from freezing. I was much galled,' the narrative goes on to add, 'by the strings of the snow-shoes during the day, and once got a severe fall occasioned by the dogs running over one of my feet, and dragging me some distance, my snow-shoe having become entangled with the sledge. In the evening we lost our way, from the great similarity in appearance of the country, and it was dusk before we discovered it again. We had much difficulty in proceeding owing to the poor dogs being quite worn out, and their feet perfectly raw. We endeavoured to tie shoes on them, to afford them some little relief, but they continually came off when amongst deep snow, so that it occupied one person entirely to look after them. In this state they were hardly of any use amongst

the steep ascents of the portages, when we were obliged to drag the sledges ourselves. . . . There was a strong gale from the north-west, and so dreadfully keen that our time was occupied with rubbing the frozen parts of the face, and in attempting to warm the hands, in order to be prepared for the next operation. Scarcely was one place cured by constant friction than another was frozen. . . . My legs and ankles were now so swelled that it was excessive pain to drag the snow-shoes after me.'

At last, after undergoing all these privations, Back and his faithful band arrived at Fort Chipewyan on 2nd January. There they waited for several weeks, and when they left took with them four sledges laden with goods for the expedition, and a fifth one belonging to the Hudson's Bay Company. Arriving at Fort Providence on 7th March, they found their stores safe and in good order. On the 17th, at an early hour, they reached Fort Enterprise, and had the pleasure of finding the other members of the expedition in good health. Back and his companions had been absent for five months, and in that time had travelled 1104 miles on snow-shoes, with no other covering at night in the woods than a blanket and

a deerskin, with the thermometer frequently at 40°, and once at 57°, below zero, and sometimes passing two or three days without food—altogether a feat of courage and endurance that deserves to take its place among the world's great deeds of heroism.

The winter at Fort Enterprise having come to an end, and the ice having given way sufficiently to permit of the canoes being launched on the Coppermine, Franklin and his party bade farewell to Akaitcho and his Indians, and on 14th June 1821 quitted their huts, 'sincerely rejoicing that the long-wished-for day had arrived' when they 'were to proceed towards the final object of the expedition.' In anticipation of returning to Fort Enterprise when the winter should lead to the relinquishing of the survey, Franklin arranged with the Indians to lay in a supply of pemmican and other stores; but, as we shall presently see, they failed to fulfil their obligation, with consequences that nearly proved fatal to the entire expedition.

Coming within sight of the sea by 14th July the party, seven days later, embarked for their voyage in the Arctic Ocean, and here a hitherto unexplored coast lay open for survey. With steady

persistence, working night and day and employing every hour of the endless light of the brief summer, the explorers proceeded eastwards for a distance of 650 miles along the coast, naming Cape Barrow and Cape Flinders, and on 18th August reaching a point to which they gave the name of Cape Turnagain. The title given to the cape suggests what happened there. It was the farthest point reached in the survey, and as winter was already showing signs of approach, Franklin decided to retreat.

It had been the original intention of Franklin, on the completion of the survey, to return to Fort Enterprise by way of the Coppermine River; but the scanty stock of provisions and the length of the voyage rendered it necessary to make for a nearer place. It had already been found that the country between Cape Barrow and the Coppermine River would not supply the wants of the expedition, and besides, at that advanced season of the year, they expected that the frequent recurrence of gales would cause great detention, if not danger, in proceeding along that very rocky part of the coast. Franklin determined, therefore, to make at once for Arctic Sound, and entering a river, to which he gave the name of his young companion, Hood, he navigated it as far as was

practicable. Then leaving it, they took the large canoes to pieces, and out of their materials constructed two smaller ones which they could carry with them, lightened their luggage as far as they could with safety, and started on foot for Fort Enterprise across the country bearing the forbidding name of the Barren Grounds.

It was a terrible march. Each day was filled with its own dangers and terrors. The story of their sufferings, as related by Franklin himself, has been described as 'one of the most terrible on human record.' That a single member of the party ever passed through these experiences alive was nothing short of a miracle. 'Heavy rains commenced at midnight,' reads one of the entries in Franklin's journal, 'and continued without intermission until five in the morning, when it was succeeded by snow on the wind changing to north-west, which soon increased to a violent gale. As we had nothing to eat, and were destitute of the means of making a fire, we remained in our beds all the day; but the covering of our blankets was insufficient to prevent us from feeling the severity of the frost and suffering inconvenience from the drifting of the snow into our tents. There was no abatement of the storm next day;

our tents were completely frozen, and the snow had drifted around them to a depth of three feet, and even in the inside there was a covering of several inches on our blankets. Our sufferings from the cold in a comfortless canvas tent in such weather, with the temperature at 20°, and without fire, will easily be imagined; it was, however, less than that which we felt from hunger.'

Just as the march was about to be commenced on the following day, the gallant leader was seized with a fainting fit, in consequence of exhaustion and the sudden exposure to the wind; but after eating a morsel of portable soup, he recovered so far as to be able to move on. But weak and almost helpless as he was, it was with difficulty that Franklin could be persuaded to partake of this scrap of food. With tragic pathos, showing to what an awful condition of destitution the expedition had been reduced, he confesses that he 'was unwilling at first to take this morsel of soup, which was diminishing the small and only remaining meal for the party; but several of the men urged me to it with much kindness.'

The miseries of the journey never for a moment relaxed. Hunger and cold were the constant com-

panions of the little band of heroes as they struggled on in their wretchedness. 'The ground was covered a foot deep with snow,' we read, 'the margin of the lakes was encrusted with ice, and the swamps over which we had to pass were entirely frozen; but the ice not being sufficiently strong to bear us, we frequently plunged knee-deep in the water. Those who carried the canoes were repeatedly blown down by the violence of the wind, and they often fell from making an insecure step on a slippery stone; on one of these occasions the largest canoe was so much broken as to be rendered utterly unserviceable. This was felt to be a serious disaster, as the remaining canoe, having through mistake been made too small, it was doubtful whether it would be sufficient to carry us across a river. Indeed, we found it necessary in crossing Hood's River to lash the two canoes together. . . . As several of the party were drenched from head to foot, and we were all wet to the middle, our clothes became stiff with frost, and we walked with much pain for the remainder of the day.'

But even this extended catalogue of miseries does not exhaust the full list of what was endured. At the close of each day's weary march, 'the first

operation, after encamping, was to thaw our frozen shoes, if a sufficient fire could be made, and dry ones were put on, and each person then wrote his notes of the daily occurrences, and evening prayers were read; as soon as supper was prepared it was eaten generally in the dark, and we went to bed and kept up a cheerful conversation until our blankets were thawed by the heat of our bodies, and we had gathered sufficient warmth to enable us to fall asleep. On many nights we had not even the luxury of going to bed in dry clothes, for when the fire was insufficient to dry our shoes we durst not venture to pull them off lest they should freeze so hard as to be unfit to put on in the morning, and therefore inconvenient to carry.'

In their constant state of hunger, the members of the party welcomed even the smallest morsel of food. 'This morning,' we read under date 14th September, 'the officers being assembled round a small fire, Perrault presented each of us with a small piece of meat which he had saved from his allowance. It was received with great thankfulness, and such an act of self-denial and kindness, being totally unexpected in a Canadian voyageur, filled our eyes with tears.' A few days later, some of the men dug up pieces of skin and a few bones of

deer that had been devoured by the wolves the previous spring. The bones, which were rendered friable by burning, were eaten with the skin, several of the men adding their old boots to the repast. On another occasion they refreshed themselves by eating their old shoes and a few scraps of leather. Deep was the gratitude of all when this state of starvation happened to be temporarily relieved. 'The bounty of Providence,' reads one entry, 'was most seasonably manifested to us in our killing five small deer out of a herd which came in sight when we were on the point of starving. This unexpected supply reanimated the drooping spirits of our men, and filled every heart with gratitude.'

On this long and terrible march it really seemed as if the rapid succession of disasters would never end. The remaining canoe, on which the hopes of the entire party rested for the negotiation of rivers, was broken in a fall, and the men declined to carry it farther. 'To their infatuated obstinacy,' says Franklin, 'on this occasion, a great portion of the melancholy circumstances which attended our subsequent progress may perhaps be attributed. The men now seemed to have lost all hope of being preserved, and all the arguments we could use failed to stimulate them to the least exertion.'

Coming to the Coppermine River, a ford was looked for, but none could be found. To avoid a long detour, which the party in their weakened condition were not able to face, it was necessary to construct some manner of raft that would ferry them across the stream, and as willows were growing in fair abundance within easy reach, the prospect, to begin with, seemed favourable enough. During a halt for the purpose of considering the subject, the carcass of a deer was discovered in the cleft of a rock into which it had fallen in the spring. Though putrid, it was still acceptable to the famishing travellers, and, a fire being kindled, a large portion of it was consumed on the spot. Encouraged by this unexpected meal, the men worked with enthusiasm at the construction of a raft; but when launched, it proved less buoyant than had been anticipated, and attempts to cross with it met with repeated failure. The prospect of crossing the river now seemed hopeless, and again the spectre of despair fell upon the disappointed party.

At this stage, when everything seemed so black, Dr Richardson stepped forward, volunteering to swim across the river with a line and to haul the raft over. Under ordinary circumstances, this undertaking would have been attended with con-

siderable danger, and reduced as he was to a skeleton through want of food and continued exposure to the cold, the risk was much increased, while the prospect of success seemed faint indeed. But the brave doctor was prepared to sacrifice his own life if only he could do something to relieve the sufferings of the others. Just as he was about to step into the water, he put his foot on a dagger, cutting him to the bone; but this misfortune did not turn him from his heroic purpose. Plunging into the stream, with a line round his body, he struck out for the opposite shore, but had got only a short distance from the bank when his arms became benumbed with cold, and he lost the power of moving them.

Even then he would not confess himself beaten. Turning on his back, he continued to persevere, and had almost reached the other side of the stream when his legs also became powerless, and, to the consternation of his companions, he began to sink. They instantly pulled upon the line; Dr Richardson came again to the surface, and was gradually drawn ashore in an almost lifeless state. 'Being rolled up in blankets, he was placed before a good fire of willows, and, fortunately, was just able to speak sufficiently to give some slight directions respecting

the manner of treating him. He recovered strength gradually, and by the evening was able to be moved into the tent. We then regretted to learn that the skin on his whole left side was deprived of feeling, in consequence of exposure to too great heat. He did not perfectly recover the sensation of that side until the following summer.'

More pitiable and hopeless than ever seemed now the condition of the expedition. Hood was reduced to a shadow, suffering greatly from eating the *tripe de roche*, a nauseous lichen that grew on the rocks, and that for days at a time constituted the entire food of the party. Back was so feeble as to require the support of a stick in walking, while Dr Richardson suffered from lameness, in addition to his extreme weakness. So reduced were they all that 'the sensation of hunger was no longer felt by any of us, yet we were scarcely able to converse upon any other subject than the pleasures of eating.' At last, on 4th October, another raft having been constructed, they were drawn, one by one, across the river, and hopes revived at the prospect of reaching Fort Enterprise within a few days, where it was expected, according to the instructions given to the Indians some time previously, a supply of pemmican and other stores was awaiting them.

Relief, however, was not so close at hand, and further miseries were to be endured before the end of the awful journey was reached. To facilitate the procuring of relief, Franklin despatched Back, with two of the voyageurs, to search for the Indians, directing him to go to Fort Enterprise, where they were expected to be, or where, at least, a note from Wentzel would be found giving some idea of their locality. Leaving Hood, Dr Richardson, and Hepburn behind, at their own request, Franklin and his small party pushed ahead, intending to send back relief as speedily as possible to their worn-out comrades. Two of the men accompanying Franklin left him after one day's march to return to the tent which sheltered Hood and his two companions, being too weak to continue the journey.

The little party, now reduced to five persons, including Franklin himself, continued their march to Fort Enterprise, suffering acute agony all the time. When no *tripe de roche* could be found, they drank tea and ate some of their old shoes for supper. 'At length,' writes Franklin, 'we reached Fort Enterprise, and to our infinite disappointment and grief found it a practically deserted habitation. There was no deposit of provision, no trace of the Indians, no letter from Mr Wentzel to point out

where the Indians might be found. It would be impossible for me to describe our sensations after entering this miserable abode and discovering how we had been neglected; the whole party shed tears, not so much for our own fate as for that of our friends in the rear, whose lives depended entirely on our sending immediate relief from this place.'

Awaiting Franklin, however, was a letter from Back, who had reached the house two days before, and, realising the dreadful state of things, had started off in search of the Indians. If he was unsuccessful in finding them, he said, he proposed walking to Fort Providence and sending succour from thence. He was very doubtful, however, whether either he or his party, in their debilitated condition, could get so far, and Franklin himself placed little reliance on help reaching them from that quarter. Their only hope, he was convinced, lay in finding the Indians, and with two companions, though feeling 'feeble and sore,' Franklin also set out in quest of them. Breaking his snowshoes by falling between two rocks, he was compelled to return to the fort, leaving the others to proceed alone, as he feared that any delay on his account might have fatal consequences for all the rest.

Back again, therefore, at Fort Enterprise, Franklin and his few comrades settled down to wait, with what patience they could command, the arrival of relief. Day by day their strength declined, and even the slightest exertion began to be irksome. 'When we were once seated the greatest effort was necessary in order to rise, and we had frequently to lift each other from our seats; but even in this pitiable condition we conversed cheerfully, being sanguine as to the speedy arrival of the Indians.' On the evening of the 29th, Dr Richardson and Hepburn arrived at the fort. It was a terrible story they had to relate of their experiences since Franklin had left them. Hood and Michel, the Iroquois, were both dead, and the two men who had left Franklin and turned back through weakness had neither reached the tent nor been heard of by Richardson or his companions. In the light of subsequent events they suspected Michel of murdering these men and eating them afterwards. His whole behaviour, said Dr Richardson, excited their suspicions. He refused to go hunting, and while he apparently had nothing to eat, he maintained his strength in a wonderful manner. On the morning of Sunday, 20th October, Dr Richardson heard the report of a gun, and about ten minutes later

Hepburn called to him in a voice of great alarm to come immediately. When he arrived he found poor Hood lying lifeless at the fireside, a bullet having apparently entered his forehead. At first he feared that Hood, in a fit of despondency, 'had hurried himself into the presence of his Almighty Judge by an act of his own hand,' but an examination of the body showed that the bullet had entered the back part of the head and passed out at the forehead. Michel, on being asked for an explanation of the occurrence, replied that Hood had sent him into the tent for the short gun, and during his absence the long gun had gone off, whether by accident or not he did not know.

There was no doubt in the minds of Richardson and Hepburn, however, that their young companion had been murdered, a conviction that was strengthened by the strange conduct of the Iroquois. They decided, therefore, that there was no safety for them except by the death of Michel. Hepburn volunteered to be the instrument of his death; but Richardson manfully determined, as he was thoroughly convinced of the necessity of such a dreadful act, to take the whole responsibility upon himself, and when Michel came up he put an end to his life by shooting him through the head with

a pistol. 'Had my own life alone been threatened,' the gallant doctor afterwards wrote, 'I would not have purchased it by such a measure; but I considered myself as entrusted also with the protection of Hepburn's, a man who by his humane attentions and devotedness had so endeared himself to me that I felt more anxiety for his safety than for my own.' This act, terrible as it was, was taken only in time, and it probably saved the lives of both Richardson and Hepburn, for Michel's gun had been put into order as if he had intended once more staining his hands with human blood; perhaps when they were in the act of encampment.

Such a story, it can well be imagined, was not calculated to raise the spirits of the party at the fort. Waiting for the relief that was so long in coming, they encouraged each other as best they could, Franklin's undying optimism bearing up under every trial and doing much to raise the spirits of the others. On 1st November, one of the voyageurs died from starvation, and six days later the eagerly expected relief came. Finding the camp of Akaitcho, Back immediately despatched several of the Indians to the fort, giving them only a small supply of provisions in order that they might travel quickly. Back's success in dis-

covering the Indians saved the lives of all the others. With splendid courage and magnificent determination, he conducted his quest, suffering terrible privations, and subsisting, with his three companions, for several days upon a pair of leather trousers, a gun-cover, and a pair of old shoes. One of the men succumbed to exhaustion, and Back and the remaining hunter were reduced to the last extremity when they reached Akaitcho's camp. The relief which they were able to send to their fellow-sufferers at Fort Enterprise was received with gratitude too deep for words. 'Praise be unto the Lord,' wrote Franklin in his diary against the date 7th November. 'We were this day rejoiced by the appearance of Indians, with supplies, at noon.'

What remains to be told of this expedition can be put into a few words. Carrying with them further supplies, the Indians reached the fort, and with much kindness nursed and fed the dying men, bringing them back from the mouth of the grave, and guiding them, when a week later they were able to face the journey, to Fort Providence. The winter was spent at Moose-Deer Island, and England was safely reached in the following October.

‘And thus terminated,’ wrote Franklin, ‘our long, fatiguing, and disastrous travels in North America, having journeyed by water and land (including our navigation of the Polar Sea) 5550 miles.’

CHAPTER V.

FRANKLIN'S FATAL EXPEDITION AND WHAT IT ACCOMPLISHED.

DURING Franklin's absence from England he had been raised to the rank of commander, and now on his return from the wild and dreary wastes of the Arctic regions he was welcomed and honoured by learned societies and other bodies, and his fame and achievements were on everybody's lips. His marriage to Miss Helena Porden, the daughter of a London architect, took place in 1823; but their union was brief, Mrs Franklin passing away soon after her husband left on his second great expedition.

On this enterprise he set out in 1825. In the early part of the preceding year he had laid before the Admiralty a plan 'for an expedition overland to the mouth of the Mackenzie River, and thence by sea to the north-west extremity of America, with the combined object also of surveying the coast between the Mackenzie and Coppermine rivers.' This proposition was accepted. The official instructions to Franklin detailed the routes to be followed and the objects which the expedition was to serve.

'His Majesty's Government,' said this document,

which was signed by Lord Bathurst, 'having decided that an expedition should be set forth, for the purpose of exploring the northern coast of America, between the mouth of Mackenzie River and the Strait of Bering, and confiding in your great zeal and experience for the due execution of this service, I have recommended you as a proper person to be charged with the same. You are, therefore, to proceed with your party by the packet from Liverpool to New York, and from thence make the best of your way to Lake Huron, where the stores necessary for your journey have already been sent. Embarking in canoes, you are from thence to follow the water communication to the western side of the Great Bear Lake, where you are to establish your winter-quarters; and having so done, your first care should be to endeavour to open a friendly communication with the Eskimos. Early in the spring of 1826, you are to proceed down the Mackenzie River, with all the necessary stores and provisions, in order to be prepared to take advantage of the first opening of the ice on the Polar Sea, so as to enable you to prosecute your voyage along the coast to Icy Cape, round which you are to proceed to Kotzebue's Inlet, where you may expect to find His Majesty's ship

Blossom, which the Lords Commissioners of the Admiralty will order to proceed to that rendezvous, in the summer of 1826. But if, on your arrival at Icy Cape, or the northern point of Bering's Strait, you should be of opinion that you could, with safety, return the same season to the established winter-quarters, you are at liberty to do so, instead of proceeding to join the *Blossom*.'

Franklin's former colleagues, Richardson and Back, again accompanied him, and profiting by the lessons of the earlier expedition, all the plans were carefully laid so as to avoid the misfortunes and catastrophes of that enterprise. The programme outlined in the official letter already quoted was closely followed, and the practical results attained were, from a geographical standpoint, much more profitable than those of the first voyage. But Franklin, on his return in September 1827, had no such story to tell of grim fights with death or of long, weary marches across the icy wilderness as had thrilled the nation some years earlier, and consequently the public interest in his undertaking was much less keen. But, still, he had the satisfaction of having accomplished a valuable work, and his discoveries were recognised in high quarters. From the Paris Geographical Society

he received the coveted award of its gold medal; the University of Oxford conferred upon him the degree of Doctor of Civil Law; and the honour of knighthood conferred upon him in 1829 was a fitting tribute to his noteworthy achievements. The same year witnessed his second marriage, his bride on this occasion being a Miss Griffin, an intimate friend of his late wife.

Once again, after an interval of almost twenty years, Franklin ventured into the Arctic circle of ice and snow, and on this occasion he failed to find a way back. The story of this enterprise, which involved the death, not only of the noble commander, but of all the brave men who accompanied him, is the most tragic and pathetic in the long history of Polar exploration.

After having been intermitted for several years, the Admiralty expeditions were resumed in 1845, a revival having taken place of the old scheme for discovering a North-west Passage from the Atlantic to the Pacific. Franklin favoured the proposal to send another expedition, and all his old enthusiasm for research in the Polar regions still burning as brightly as ever, he was eager to act in the capacity of commander. 'Let me see, Sir John,' said Lord Haddington to the Arctic veteran, 'you

are sixty, are you not?' 'No, no, my lord,' quickly replied Franklin, 'only fifty-nine.' Soon after this interview he was appointed to the command, and the two ships, the *Erebus* and the *Terror*, were commissioned to make the new attempt at the passage which, for so many years, had lured bold seamen into the icy seas.

Sailing from the Nore to the thunder of the farewell guns of the fleet, on 19th May 1845, the expedition reached Whale Fish Islands, near Disco, in the early part of July. There a transport which had accompanied the discovery vessels parted company with them, carrying back the last letters ever received from the explorers. These were all written in the most cheerful spirit, and among them was a despatch from Sir John Franklin to the Admiralty, dated 12th July, in which he said: 'The ships are now complete with supplies of every kind for three years; they are, therefore, very deep, but happily we have no reason to expect much sea as we proceed.' On the 26th of the same month, the expedition was seen waiting for a favourable opportunity of crossing 'middle ice' on the way to Lancaster Sound, and then it disappeared into the embrace of the frozen zone, to find its grave amid the merciless mountains of eternal ice.

The absence of news from the discovery ships did not at once give rise to any alarm, for they carried sufficient provisions to last for three years, and other expeditions, notably that of Sir John Ross, which was locked in the ice for four winters, had been absent for years without being able to communicate with the outside world. One of the first notes of alarm was sounded—strange as it may seem in view of his own long absence just mentioned—by Sir John Ross, who, in a letter to the Admiralty and to the Royal and Geographical Societies, expressed the conviction that Franklin's ships were 'frozen up at the western end of Melville Island, from whence their return would be for ever prevented by the ice accumulating behind them.' It was thought, however, by the Lords Commissioners of the Admiralty that 'the second winter of Sir John Franklin's absence was too early a period to give rise to well-founded apprehensions for his safety;' but, nevertheless, they invited the opinions of naval officers who had been employed in Arctic expeditions. Their replies were sufficiently alarming to stir the Government into sending relief-parties, and thus there began a quest which for the next ten years was watched with eager and sympathetic interest by the whole civilised world.

It was not from England alone that these expeditions were despatched. America and France also assisted in the search, voluntarily supplying ships and men to help in solving the mystery of the missing vessels. Party after party, both private and public, numbering altogether about forty and following each other in rapid succession, set out on their mission of humanity, some of them to end in disaster, and most of them to add nothing to the solution of the distressing enigma. It was not till 1854 that any real light was shed upon the fate of Sir John Franklin and the courageous men who had accompanied him. Returning from a search instituted by the Hudson's Bay Company, Dr John Rae reported having met with a party of Eskimos who told him that about six years before they had fallen in with a company of white men dragging their boats and sledges over the ice, and who by signs communicated to them the fact that their ship had been crushed in the ice. Later on, the Eskimos had discovered the boats and graves of many of these men. In proof of their story, they produced silver spoons and forks, which Dr Rae purchased from them, and as these objects had without doubt belonged to the missing expedition, the story of the Eskimos was unhesitatingly

accepted in England, and Rae and his party were paid the reward of £10,000 offered for tidings of the expedition.

There seemed little more to learn; but Lady Franklin, wonderfully brave and patient during her long and trying ordeal, was not yet satisfied. Eager to learn more particulars of her husband's fate, she and the advocates for still further search pressed upon the Government the necessity of following up in a more effective manner the traces found by Dr Rae, and, in fact, of rendering the search complete by one more effort. But the Government, coming to the conclusion that there was now no prospect of saving life and that another expedition to the Arctic seas would not be justified, declined to take further steps. Though her hopes were disappointed in that quarter, Lady Franklin determined that another search should be made, and, at her own expense, equipped and stored an expedition. Captain McClintock, now Admiral Sir Leopold McClintock, who, happily, is still with us (1910), was invited to the command, and many old shipmates, his companions in previous Arctic voyages, volunteered their services. The *Fox*, a small steam-yacht of 160 tons, was chartered for the enterprise and provisioned for a two years'

absence, the Government, although declining to be responsible for the expedition, liberally assisting with supplies. The departure from these shores was made on 1st July 1857, with Lieutenant Hobson as second in command and Captain Young, now Sir Allen Young, as navigating officer.

It seemed too much to expect that where so many other expeditions had failed the little *Fox* would meet with success; but after being locked up in the ice-pack for eight months, daily in danger of being crushed to pieces in the floes, the tiny vessel reached the region that had been the scene of Franklin's imprisonment, and, as a result of a series of investigations organised by McClintock, discoveries were made which helped materially in reading the riddle of the ill-fated expedition.

From the discoveries of Rae and McClintock, it is possible to trace with tolerable accuracy the movements of Franklin and his party from the point at which they disappeared. Grim, indeed, is the tragedy that was at length revealed—the weary imprisonment amid the ice during the long winters of endless darkness and the short summers of un-failing light, the hope of relief that never came, the merciful passing away of the gallant old com-

mander before the final catastrophe with its relentless doom fell upon his brave men, the abandoning of the ships to their fate and the toilsome march over the ice in the vain struggle to escape death—that was the terrible story of the expedition which, full of hope and confident of success, had sailed from England in 1845.

The first winter was spent at Beechey Island, comfortably enough, no doubt, for the terrors which latterly fell in such abundance were undreamt of, and, well provisioned as the vessels were, there would be no lack of food. There three of the men, two seamen and a marine, died. When the summer of 1846 arrived, Franklin attempted to move southwards, the two ships bravely struggling among the grinding icebergs of Peel Sound and Franklin Strait, but making little advance against the difficulties that barred their progress. Early in September, the winter suddenly began, and to the north of Cape Felix, the most northerly point of King William's Land, the *Erebus* and the *Terror* were again bound in the iron grip of the frozen sea and held there, bandied backwards and forwards by the shifting ice in surroundings as terrible as the human mind can conceive, and in constant dread that the frail ships would be ground to

pieces by the pressure of the frozen mountains amongst which they were imprisoned.

In the spring of 1847, Lieutenant Graham Gore of the *Erebus*, accompanied by another officer and six men, was despatched with sledges to King William's Land, and reaching Point Victory deposited there the following brief record of the circumstances in which the expedition then stood and of the experiences that lay behind: '28th May 1847.—H.M. ships *Erebus* and *Terror* wintered in the ice in lat. $70^{\circ} 5'$, long. $98^{\circ} 23'$ W., having wintered in 1846 and 1847 [should obviously read 1845 and 1846] at Page Island in lat. $74^{\circ} 43'$ and long. $91^{\circ} 39'$ W., after having ascended Wellington Channel, lat. 77° , and returned by the west side of Cornwallis Island. Sir John Franklin commanding the expedition. All well. Party consisting of two officers and six men left ships on Monday, May 24, 1847. Graham Gore, lieutenant; Charles F. Des Voeux, mate.'

About a year later, a mournful addition was made to this record, after the lapse of another winter in the ice—the third since leaving England. On the 25th April 1848, the message left by Lieutenant Gore in its cairn of stones was removed and then returned to its resting-place after the

following words had been written round the margin: 'H.M. ships *Terror* and *Erebus* were deserted on the 22nd April, five leagues north-west of this, having been beset since 12th September 1846. The officers and crews, consisting of 105 souls, under the command of Captain F. R. M. Crozier, landed here in lat. $69^{\circ} 37' 42''$ N., long $98^{\circ} 41'$ W. Sir John Franklin died on the 11th June 1847; and the total loss by deaths in the expedition has been to this date nine officers and fifteen men. F. R. M. Crozier, captain and senior officer; James Fitzjames, captain, H.M.S. *Erebus*.' To that intimation were appended these words: 'And start to-morrow for Back's Fish River.'

'All well,' reads the first message, suggesting that there was as yet no premonition of the coming calamity. But much happened before the tragic addition was made to that brief statement. When Sir John Franklin died there was still the anticipation of ultimate success; but the short Arctic summer came and went, and the ships remained bound in the vast ice-pack. Then another dreary winter set in, bringing added fears and terrors with it as the prospect of release from the icy prison seemed more remote than ever. The spring of 1848 came on, and Captain Crozier, who had succeeded

to the command of the party after the death of Sir John Franklin, felt that the only chance of life was to abandon the ships.

Accordingly, on 25th April, 105 souls took to the ice, boats placed on runners and sledges having been prepared, with the intention of journeying to the mainland by way of Back's Great Fish River, the mouth of which lay 250 miles away from the spot at which the vessels then lay. It was a cold and dismal, as well as a dangerous, journey, and one that must have been undertaken only when no other escape seemed possible and when the failure of the provisions rendered it absolutely necessary. What happened on that fatal march can be gathered from the story of the Eskimos, who told Dr Rae that they sold seal's flesh to the white men, while from a band of the same people McClintock learned that the Englishmen dropped their drag-ropes on the march and died where they fell. A scanty remnant of about forty men, according to the estimate of the Eskimos, reached the vicinity of the Great Fish River, battling with the energy of despair against the resistless fate that was surely overtaking them, and that left not even one of them to tell the story of suffering and death.

Napoleon's retreat from Moscow in the depth of

the Russian winter is not more tragic than the march of this brave company of Englishmen across the frozen wilderness in their fruitless attempt to escape from the scenes of desolation and death. Overcome by fatigue and cold, the enfeebled explorers dropped out of the ranks one by one, and lay down in the snow to die. Thus the band grew smaller as the journey continued, those who remained pushing on with weary footsteps and with hope and despair alternating at their hearts. Daily the death-roll increased till the last man of all dropped never to rise again, and, death's grim work done, the curtain fell on the final scene.

A vain expedition? No. There is no achievement without its sacrifice, no discovery without its suffering, no gain without its loss, no crown without its cross. The Arctic circle has always demanded a dear price before grudgingly yielding up its secrets, and one of these long-hidden and jealously guarded secrets was laid bare at last. The expedition had succeeded in demonstrating the existence of the long-sought North-west Passage, having connected Lancaster Strait with the navigable channel that extends along the continent to Bering Strait, and thus uniting a known track on the east with a known track on the west.



The last man of all.

The North-west Passage, which for centuries had been the dream and the goal of navigators, defying them again and again, had been discovered at last, and thus the men who had left all and dared all to follow the call of duty were conquerors even in their death.

CHAPTER VI.

THE HORRORS OF AN ICY PRISON.

SOME one has said that the death of Sir John Franklin did more to add to our knowledge of the Polar regions than had been accomplished by his life. His strange disappearance amid the Arctic wastes was the signal for a remarkable series of attempts to penetrate into the ice-bound territory around the North Pole with the view of discovering the fate of the brave explorer and, if not too late, of rescuing him and his gallant crews from the deadly grip of the frozen land. As the Crusades of the Middle Ages had roused the Christian knights to fight for the recovery of Jerusalem from the hands of the infidels, so did the tragic mystery of the *Erebus* and the *Terror* kindle into a burning flame the chivalrous enthusiasm of Great Britain and America, and lead, as we have seen, to the despatch of expedition after expedition into the hidden wonderlands of snow and ice.

What these expeditions accomplished, and what they failed to accomplish, we already know. The spirit of heroic daring and courage characterised them all; but the story of one of them, that led

by Dr Elisha Kent Kane, of America, deserves more than a passing reference. In all the literature of Polar exploration and adventure there is little to compare with the record of suffering and endurance set forth in the journal of the heroic commander. For twenty-one months the vessel containing the search party was firmly locked in the very jaws of death. Provisions ran short, scurvy and other diseases attacked the crew, again and again accidents happened which threatened the life of all the expedition, for weeks and months on end starvation stared every one in the face, and it seemed as if there could be no escape from the vast network of cruel circumstances. But amid it all, Kane's marvellous confidence in ultimate relief never wavered. He hoped on when every one else was resigned to death, and eventually led his diminished band back to civilisation across a stretch of ice and water for 1300 miles, after their vessel, no longer of service to them, had been abandoned to its fate.

An experienced traveller and explorer before undertaking this expedition, Kane had been engaged under Lieutenant De Haven, in the Grinnell Expedition, which sailed from the United States in 1850 in search of Sir John Franklin, and, in the

month of December 1852, he was commissioned by the Secretary of the Navy to lead another party on the same humane mission. Setting out on board a vessel named the *Advance*, the expedition purposed passing up Baffin Bay to its most northern attainable point; 'and thence, pressing on toward the Pole as far as boats or sledges could carry us, examine the coast-lines for vestiges of the lost party.'

The departure was made from New York on 30th May 1853, and two months later we find the *Advance* off the coast of Greenland in imminent peril from the ice. The ship was fastened to an iceberg, and had barely time to cast off before the face of the berg fell in ruins, 'crashing like near artillery.' The passage through Melville Bay was made without mishap, and then in the waters farther northwards the old enemy of navigation in these regions was encountered. 'Directly in our way,' reads the journal entry for 20th August, 'just beyond the line of floe-ice against which we were alternately sliding and thumping, was a group of bergs. We had no power to avoid them; and the only question was, whether we were to be dashed in pieces against them, or whether they might not offer us some providential nook of refuge from the storm. But as we neared them,

we perceived that they were at some distance from the floe-edge, and separated from it by an interval of open water. Our hopes rose as the gale drove us toward this passage and into it; and we were ready to exult, when, from some unexplained cause—probably an eddy of the wind against the lofty ice-walls—we lost our headway. Almost at the same moment we saw that the bergs were not at rest; that with a momentum of their own they were bearing down upon the other ice, and that it must be our fate to be crushed between the two.

‘Just then a broad sconce-piece or low water-washed berg came driving up from the southward. The thought flashed upon me of one of our escapes in Melville Bay, and as the sconce moved rapidly close alongside us, M’Garry managed to plant an anchor on its slope and hold on to it by a whale-line. It was an anxious moment. Our noble tow-horse, whiter than the pale horse that seemed to be pursuing us, hauled us bravely on; the spray dashing over his windward flanks, and his forehead ploughing up the lesser ice as if in scorn. The bergs encroached upon us as we advanced; our channel narrowed to a width of perhaps forty feet; we braced the yards to clear the impending ice-walls. We passed clear; but it was a close shave

—so close that our port quarter-boat would have been crushed if we had not taken it in from the davits—and found ourselves under the lee of a berg, in a comparatively open lead. Never did heart-tried men acknowledge with more gratitude their merciful deliverance from a wretched death.’

Reaching latitude $78^{\circ} 43' N.$, the *Advance* was frozen up, and then, with the long night already upon them, the party settled down to the experiences of an Arctic winter. From the very outset the difficulties and dangers descended thick and fast. The sledge-dogs fell into chasms; the sledge parties met with disasters, and were rescued only after heroic efforts; disease and death were already busy among the men; and by the beginning of April Kane is lamenting the fact that the week just ended has left him nothing to remember but anxieties and sorrow. Nearly all the party were then tossing in their sick-bunks; some frozen, others undergoing amputations, several with dreadful premonitions of tetanus. By the end of the month came the short season available for Arctic search, and though the condition of things on board the brig was far from satisfactory, the leader pushed ahead with the preparations for renewed exploration.

Sledge parties started off from the vessel; but

on the 20th of May, Dr Kane, propped up by pillows and surrounded by sick messmates, records the fact that he has again failed to force the passage to the north. Scurvy had broken out among the men; some of them suffered from snow-blindness; the leader himself, fainting and delirious, was saved from death only by the devotion of five of his men, themselves scarcely able to move; and, in addition, the heavy snows rendered travelling extremely difficult. It was thus a disappointed and a discouraged party that returned to the shelter of the brig, much before the time anticipated, with nothing to show but trouble and defeat.

It is characteristic of Kane that as soon as he recovered enough to be aware of his failure, he began to devise means for remedying it. The resources of the party were, however, shattered. 'Pierre had died but a week before, and his death exerted an unfavourable influence. There were only three men able to do duty. Of the officers, Wilson, Brooks, Sontag, and Petersen were knocked up. There was no one except Sontag, Hayes, or myself who was qualified to conduct a survey: and of us three, Dr Hayes was the only one left on his feet. The quarter to which our remaining observations were to be directed lay to

the north and east of the Cape Sabine of Captain Inglefield. The interruption our progress along the coast of Greenland had met from the Great Glacier, and the destruction of our provision-caches by the bears, left a blank for us of the entire northern coast-line. It was necessary to ascertain whether the farthestmost expansion of Smith Strait did not find an outlet in still more remote channels; and this became our duty the more plainly, since our theodolite had shown us that the northern coast trended off to the eastward, and not toward the west, as our predecessor had supposed. The angular difference of 60° between its bearings on his charts and our own left me completely in the dark as to what might be the condition of this unknown area.'

Determining to trust almost entirely to the dogs for travel in the future, Kane despatched Hayes on a sledge journey of exploration, which succeeded in connecting the northern coast with the survey of a previous expedition; but it disclosed no channel or any form of exit from the bay in which the brig lay. Dr Kane was convinced, however, that such a channel must exist, 'for this great curve could be no *cul-de-sac*.' To verify this theory he immediately began the organisation of a double party, the field of which was to be the

hundred miles wanting to the north-east to complete their entire circuit of that frozen water. Two sledge parties were despatched, and returned in safety after their survey, which did little to solve the doubts and difficulties of the situation.

The season of Arctic travel had again ended. The summer was wearing on, but still the ice did not break up as expected, and as far as could be seen it remained inflexibly solid between the expedition and the North Water of Baffin Bay. On the 8th of July, Dr Kane reviewing the situation takes a rather despondent view of their being able to find a passage through the pack-ice. He is afraid that, in the event of trying to force a passage, the winter may set in before they can get half-way through. 'There never was,' he mournfully writes in his journal, 'and I trust never will be, a party worse armed for the encounter of a second Arctic winter. We have neither health, fuel, nor provisions. Dr Hayes, and indeed all I have consulted, despond at the thought; and when I look around upon our diseased and disabled men, and think of the fearful work of the last long night, I am tempted to feel as they do.'

The alternative of abandoning the vessel at that early stage of the enterprise did not commend

itself to the commander, for he felt that, even if it were possible, it would be dishonouring; but revolving the question as one of practicability alone he would not undertake it. But still his mind is shadowed by a doubt. What is he to do? 'In the first place,' we find him arguing with himself, 'how are we to get along with our sick and newly amputated men? It is a dreary distance at the best to Upernavik or Beechey Island, our only seats of refuge, and a precarious traverse if we were all of us fit for moving; but we are hardly one-half in efficiency of what we count in number. Besides, how can I desert the brig while there is still a chance of saving her? There is no use of noting pros and cons: my mind is made up; I will not do it.'

Determining to examine the ice-field for himself, Kane started off on a long sledge journey, and as a result of this survey he resolved to attempt in person to communicate with Beechey Island, knowing that if he could reach Sir Edward Belcher's squadron he would be sure of the much-needed assistance. He was quite aware that this was a hazardous venture, but he realised at the same time that it was an incumbent duty; and while he would have been glad to delegate the task to a

subordinate, he felt that he had no right to devolve this risk upon another, and, besides, he was the only one possessed of the necessary local knowledge of Lancaster Sound and its ice-movements. Taking with him five men and the boat named the *Forlorn Hope*, which was mounted on a large sledge till the open water was reached, the little party proceeded on its southern journey, fighting daily with ice-floes, being nipped in the ice, and hauling the boat on the floes, sometimes as many as a dozen times a day, to escape the pressure of the floating masses.

At last, on 31st July, 'at the distance of ten miles from Cape Parry, we came to a dead halt. A solid mass lay directly across our path, extending onward to our farthest horizon. There were bergs in sight to the westward, and by walking for some four miles over the moving floe in that direction, M'Garry and myself succeeded in reaching one. We climbed it to a height of a hundred and twenty feet, and, looking out from it with my excellent spy-glass to the south and west, we saw that all within a radius of thirty miles was a motionless, unbroken, and impenetrable sea.'

Naturally, this was disappointing. It was obvious that a further attempt to penetrate to the south

must be hopeless till the ice-barrier should undergo a change, and there was nothing for it but to return to the brig and face another winter among the ice with all the miseries which such a situation involved. 'It is horrible—yes, that is the only word,' wrote Kane in his diary, when the prospect of release dwindled away, 'to look forward to another year of disease and darkness to be met without fresh food and without fuel. I should meet it with a more tempered sadness if I had no comrades to think for and to protect.'

A few days later it was made clear beyond all doubt that the brig could not escape; and calling the officers and crew together, Kane frankly explained the considerations which had determined him to remain where he was. He endeavoured to show them that an escape to open water could not succeed, and that the effort must be exceedingly hazardous; but he was perfectly willing to give his permission to such as were desirous of making the attempt. Eight out of the seventeen survivors of the party resolved to stand by the brig; the resources were divided, and on Monday, 28th August, 'the party moved off with the elastic step of men confident in their purpose, and were out of sight in a few hours.' Months later, however, after

many trials and hardships, and when they had failed in their purpose, the men who had departed so hopefully returned to the ship to share once more the unhappy fortunes of their suffering comrades.

It is not to be wondered at that the departure of half of the crew had its effect on those who remained behind, and that dark and dreary forebodings should occupy their every thought. 'The reduced numbers of our party, the helplessness of many, the waning efficiency of all, the impending winter, with its cold, dark night, our penury of resources, the dreary sense of increased isolation—these,' wrote Kane, at this critical period of their imprisonment, 'made the staple of our thoughts. For a time Sir John Franklin and his party, our daily topic through so many months, gave place to the question of our own fortunes—how we were to escape, how to live.'

The problem of how to live was certainly not an easy one to solve. But something had to be done, and one day a sealing expedition was organised. During the progress of the hunt, the party passed upon a new belt of ice that was obviously unsafe. It was more than a mile to the nearest lump of solid ice, and to reach it the dogs were urged on

with whip and voice, the ice rolling like leather beneath the sledge-runners. Everything depended on the dogs. A moment's check would plunge the whole concern into the rapid tideway. It was a desperate race against fate. Nearer to the floe dashed the sledge, and the worst seemed over when, within fifty paces from the solid ice, the dogs suddenly paused, terrified by the rolling of the tough salt water. The left-hand runner went through, the leader, 'Toodlamick,' followed, and a second later the entire left of the sledge was submerged.

Leaning forward to liberate the dogs, Kane found himself swimming in a little circle of pasty ice and water. 'I succeeded in cutting poor Tood's lines,' he afterwards wrote, in describing these moments of horror, 'and letting him scramble to the ice, for the poor fellow was drowning me with his piteous caresses, and made my way for the sledge; but I found that it would not buoy me, and that I had no resource but to try the circumference of the hole. Around this I paddled faithfully, the miserable ice always yielding when my hopes of lodgment were greatest. During this process I enlarged my circle of operations to a very uncomfortable diameter, and was beginning to feel

weaker after every effort. Hans meanwhile had reached the firm ice, and was on his knees, like a good Moravian, praying incoherently in English and Eskimo; at every fresh crushing-in of the ice he would ejaculate "God!" and when I recommenced my paddling he recommenced his prayers. I was nearly gone. My knife had been lost in cutting out the dogs; and a spare one which I carried in my trousers' pocket was so enveloped in the wet skins that I could not reach it. I owed my extrication at last to a newly broken team-dog, who was still fast to the sledge, and in struggling carried one of the runners chock against the edge of the circle. All my previous attempts to use the sledge as a bridge had failed, for it broke through, to the much greater injury of the ice. I felt that it was a last chance. I threw myself on my back, so as to lessen as much as possible my weight, and placed the nape of my neck against the rim or edge of the ice, then with caution slowly bent my leg, and, placing the ball of my moccasined foot against the sledge, I pressed steadily against the runner, listening to the half-yielding crunch of the ice beneath. Presently I felt that my head was pillowed by the ice, and that my wet fur jumper was sliding up the surface. Next came my

shoulders; they were fairly on. One more decided push, and I was launched up on the ice and safe. I reached the ice-floe, and was frictioned by Hans with frightful zeal. We saved all the dogs; but the sledge, kayak, tent, gun, snow-shoes, and everything besides were left behind.'

This was not the only escape from a watery grave experienced by the explorer and his comrades as they settled down to winter in their inhospitable quarters; but death by drowning was nothing compared with the fearful dread of starvation, which was scarcely absent for a single day. Mournful, indeed, are the entries which are to be found in the journal of the brave commander, who, with unquenchable resource and determination, struggled against a combination of circumstances that would have dismayed and overcome any ordinary man. Unlike the previous winter, Kane throughout his long and trying ordeal remained in wonderfully good health, and thus he was able to minister to the needs of the others when, but for his sympathetic care, they would have sunk under their load of afflictions.

It makes melancholy reading to come across such entries as these: 'M'Garry and Brooks are sinking rapidly. Walrus beef alone can sustain them, and

it is to be got from the natives, and nowhere else.' 'Our only diet will be a stock of meat biscuits, to which I shall add for myself—Petersen's taste is less educated—a few rats, chopped up and frozen into the tallow-balls.' 'I have fed the dogs the last two days on their dead brethren. Spite of all proverbs, dog will eat dog, if properly cooked. I have been saving up some who died of fits, intending to use their skins, and these have come in very opportunely. I boil them into a sort of bloody soup, and deal them out twice a day in chunks and solid jelly; for of course they are frozen like quartz rock. These salt meats are absolutely poisonous to the northern Eskimo dog. We have now lost fifty odd, and one died yesterday in the very act of eating his reformed diet.' 'I found an overlooked godsend this morning—a bear's head put away for a specimen. There is no inconsiderable quantity of meat adhering to it, and I serve it out raw to Brooks, Wilson, and Riley.' 'There is no evading it any longer; it has been evident for the past ten days that the "present state of things cannot last." We require meat, and cannot get along without it. Our sick have finished the bear's head, and are now eating the condemned abscessed liver of the animal, including some intestines that were not

given to the dogs. We have about three days' allowance; thin chips of raw frozen meat, not exceeding four ounces in weight for each man per diem. Our poor fellows eat it with zest, but it is lamentably little.' 'On Sunday, the 4th (March), our last remnant of fresh meat had been doled out. Our invalids began to sink rapidly. The wounds of our amputated men opened fresh.'

And so on from day to day, the same sad story of disease and starvation. Once or twice, when things were at their worst, a little relief was obtained from the Eskimos; but they themselves had passed through a serious famine, and were not able to render much assistance. Again and again everything seemed at an end with the disabled and utterly disheartened party; but Kane never lost hope, and was able to impart some of his own confidence to his comrades.

At last, with the approach of spring, bringing with it the possibility of a way out, it was decided to leave the ship, and arrangements were carefully made for the journey of alternating ice and water of more than 1300 miles. On 20th May a solemn farewell to the brig was made. It was Sunday, and after prayers and the reading of a portion of Scripture, all standing silently round, Kane

addressed the party. He did not affect to disguise the difficulties that were before them; but he assured the men that all could be overcome by energy and subordination to command, and that the 1300 miles that lay between them and North Greenland could be traversed with safety for most of them, and with hope for all.

There were many dangers on the journey, and all the party suffered severely from the exposure and the want of food. One man died; but after eighty-four days in the open air the perilous undertaking was accomplished, and with grateful hearts the explorers stood once more with the solid earth beneath their feet.

CHAPTER VII.

TRAGEDIES ON THE FROZEN SEAS.

AMERICAN enthusiasm for Arctic discovery did not end when the expeditions that had gone in search of the missing Franklin party had completed their work. It was in the cause of humanity that the American navigators first entered the Arctic circle. When that cause no longer existed they continued their researches, drawn on by the ambition of planting the national flag at the very summit of the earth's surface.

Acting as surgeon with Kane's expedition, the experiences of which are described in the preceding chapter, Dr Isaac Israel Hayes, soon after his return to America, began preparing for an undertaking of discovery under his own command, being convinced of the existence of an open Polar Sea. Having obtained the support enabling him to fit out an expedition, he sailed from Boston, in the schooner *United States*, on 7th July 1860, with a crew of fifteen, increased to twenty-one at Upernavik, which was reached on 12th August. Encountering a succession of furious northerly gales near Cape

Alexander, in which the ship was seriously damaged, Hayes found his progress hindered, and was compelled to winter in Foulke Fiord, $78^{\circ} 18' \text{ N.}$, 73° W. , to the south of Littleton Island.

Like its predecessors, this expedition met with calamities. The astronomer, Sontag, perished in a sledge journey during the winter, and in the following March, one of the Eskimos also met his death among the ice. On 3rd April, Hayes started out from the ship with dog-sledges, with the intention of crossing Kane Basin and following its western shores to the north, and on 11th May he reached Cape Hawks, situated about seventy miles from his headquarters. Greely, the American explorer, whose disastrous enterprise some years later will be noticed in its proper place, points out that thirty-eight days had been occupied by Hayes in making the distance, yet he claims to have reached Cape Lieber, about 170 miles beyond Hawks, six days later.

‘It is a thankless and ungracious task to criticise our predecessors in exploration,’ Greely goes on to say. ‘They are men who have struggled and suffered in the same trying and adverse circumstances as ourselves, and we appreciate their labours and dangers accurately. But at times adverse

criticism is necessary in the interests of truth and history.' Unfortunately, as Hayes's critic further asserts, no one who has compared his narrative with his astronomical and meteorological records can so reconcile them as to substantiate Hayes's claim to have reached, with Knorr, Cape Lieber on 18th May 1861. The topography of Lieber is incorrect, its latitude two and a half miles in error, and its longitude to the westward of the true position. 'No cairn exists at Lieber, and Hayes's picture of that headland bears a striking resemblance to a sketch of Cape Joseph Good, made by Sergeant Gardiner of my party,' adds Greely. 'Sir George Nares has pointed out that Cape Frazer is placed ten miles too far north by Hayes, and that the latitude of other places is similarly erroneous.'

It is thus evident that the explorers of these frigid regions have not always been in agreement, and that the great dispute which arose many years later between Peary and Cook, when they both claimed to have reached the Pole, was not the first note of discord in connection with Arctic research.

When the summer arrived and the ice broke up, the *United States* made her way out of Foulke Fiord, leaving there on 10th July, and returning home in the autumn, after crossing Smith Sound

and examining the west coast from Cape Sabine to Isabella.

The next American to lead an expedition into the icy wilderness of the North was Charles Francis Hall, who had long cherished the ambition of planting his country's flag at the end of the axis of the earth. By many years of banishment from home, he had prepared himself for the task of his life. His first acquaintance with the Arctic regions was in 1860 when, with the object of searching for the remains of Sir John Franklin's expedition, he braved the hardships of that land for three years, living alone among the Eskimos, and practising their customs and mode of living. Again, from 1864 'till 1869, he renewed his acquaintance with the land and its people, and was able to bring back relics of the Franklin expedition and the supposed bones of one of that company.

These experiences, valuable in their way, were, however, but preparatory for the greater undertaking which Hall determined to make whenever he could procure the necessary support. 'Night and day, day and night,' he wrote to a friend in 1869, 'weeks, months, and years find my heart and purpose fixed, without a shadow of wavering, on making that voyage. May heaven spare my life to

perform it.' In the same year, writing to the president of the Teachers' Institute of Hamilton County, Ohio, accepting an invitation to lecture before the Institute, he says: 'Although the primary object of my voyages to the North has not been for geography, yet I have been enabled to make considerable advance in geographical discoveries. There is a great, sad blot upon the present age which ought to be wiped out, and this is the blank on our maps and artificial globes from about the parallel of 80° north up to the North Pole. I, for one, hang my head in shame, when I think of the many thousands of years ago it was that God gave to man this beautiful world—the whole of it—to subdue, and yet that part of it which must be most interesting and glorious, at least to me, remains as unknown to us as though it had never been created. Having now completed my Arctic collegiate education, I feel to spend my life in extending our knowledge of the earth up to that spot which is directly under Polaris—the crowning jewel of the Arctic dome. I hope to start on my next voyage next spring. Shortly I expect to apply to our Government for its aid, feeling that the day has come when the great problem of the ages must be solved under the Stars and Stripes'

Successful in obtaining the support of Congress, Hall was appointed to the command of the expedition, and being sanguine of the fullest success he gave to the vessel acquired for the voyage the name of *Polaris*. 'From Upernavik or Tossak,' read his instructions, 'you will proceed across Melville Bay to Cape Dudley Digges, and thence you will make all possible progress with vessels, boats, and sledges towards the North Pole, using your own judgment as to the route or routes to be pursued, and the locality for each winter's quarters. Having been provisioned and equipped for two and a half years, you will pursue your explorations for that period; but should the object of the expedition require it, you will continue your explorations to such a further length of time as your supplies may be safely extended. Should, however, the main object of the expedition—viz., attaining the position of the North Pole—be accomplished at an earlier period, you will return to the United States with all convenient despatch.'

Sailing from New York on 29th June 1871, the *Polaris* was accompanied as far as Godhavn by the steamship *Congress* as a supply vessel. On leaving America, the officers and crew numbered twenty-three souls, to which other ten were added

in Greenland. Excellent progress was made on the voyage, and Captain Hall was thereby encouraged to hope more than ever in the success of the scheme. After Melville Bay had been safely navigated, the *Polaris* experienced her first contact with the ice off Hakluyt Island. Smith Sound and Kennedy Channel were navigated without any serious trouble, and the highest point in the voyage was then reached, the *Polaris* attaining $82^{\circ} 11' N.$, at that time the highest north latitude ever touched. It was not possible, however, to maintain this position, for the swift current carried the vessel with it, and from the fog and snow protection had to be sought by anchoring the *Polaris* to a large ice-floe. In the steady drift southward Captain Hall observed a small bay, which he was desirous of exploring in the hope that it might afford some shelter; but though he twice made the attempt, he did not succeed, and in commemoration of his double defeat he named it Repulse Harbour.

It was only by exercising the greatest care that the *Polaris* was kept free from damage during these days of constant struggle with the ice. The sailing-master urged Captain Hall to seek a harbour at once and go into winter-quarters; but he was still hopeful of working farther to the

north, and did not want to abandon any chance that might be found of reaching a higher latitude before being compelled to seek quarters for the winter. To consider the situation he called a council of his officers. The opinion was unanimous among them that it was impossible to advance to the north along the eastern side of the channel, and it therefore became necessary either to seek a harbour immediately on the east coast or attempt a passage to the westward. The latter of these courses was adopted by Hall in the hope that opportunities for sledge travelling might be afforded; if defeated in this plan, he would seek a harbour on the eastern coast.

It was only with the greatest difficulty that the ship was able to move at all, for on every side were huge floes, to one of which at last the *Polaris* had to be secured. On the morning of 1st September heavy snow squalls added to the difficulties of the situation, and as the ice, forced by the wind, pressed closer and closer upon the ship there was every prospect of its being crushed to pieces. Realising the danger, the captain ordered his men to be in readiness to leave the vessel at a moment's notice. As the pressure increased, the *Polaris* heeled over and was almost forced upon

the surface of the ice; and a catastrophe seeming imminent, stores and provisions were quickly removed from the hold and placed upon the deck in preparation for a hurried retreat. On the morning of the 2nd of September the outlook was even darker. There seemed no possibility of escaping from the gigantic floes that imprisoned the ship, and, as her destruction was hourly expected, provisions and coal were lowered on to the ice, so that in the event of the crew requiring to abandon the *Polaris* they would have a supply of necessaries for the winter that was already upon them.

Calling the men together for divine service on the following morning, Captain Hall spoke with satisfaction of what had already been accomplished. They had done all that they could, he said, and had only given in to a force that it was impossible to resist. But the brave leader was not without hope even yet. He still believed that there was no reason to doubt the accomplishment of their ardently desired object—the reaching of the Pole—but he could not conceal from his men the danger of their position, and he urged them to give the closest attention to the religious services in which they were about to engage, as at that particular time they all needed the assistance of a higher

power. The service was then conducted by one of the officers, and the record of the day is thus closed by a member of the ship's company: 'The ship and crew appear to be a ready prey to the ice. But there is a God who aids and saves from death; to Him I trust between these icebergs, although I know that I do not deserve all the good He grants me.'

As the day advanced, the weather showed signs of improving, and the stores that had been placed upon the floe were taken back to the ship. Having cast off from the ice, the vessel proceeded under steam towards the eastern shore, soon reaching water that was comparatively free from obstruction, and ultimately anchoring in a harbour close to the land, named by Hall Thank God Harbour, 'in humble recognition of the divine hand by which the expedition had been guided.' Being anxious to make a sledge journey before the winter set in, Hall announced his intention of proceeding on a mission of exploration to determine how far north the land extended on the east side of the strait on which the *Polaris* was wintering, and also to prospect for a feasible inland route to the north-west for sledging in the following spring, when the serious attempt would be made to reach the Pole.

With two sledges, and accompanied by the first-mate, Chester, the Eskimo, Joe, and the Greenland Eskimo, Hans, Captain Hall set out on this journey on 10th October, and penetrating northwards to Cape Brevoort, deposited there a record of what had been accomplished. On the route Hall named Robeson's Strait after the Secretary of the United States Navy, and also discovered a lake and a river. 'From the top of an iceberg,' wrote the commander in his record, 'near the mouth of said river, we could see that this bay, which I have named after Rev. Dr Newman, extended to the high land eastward to southward of the position about fifteen miles, making the extent of Newman's Bay, from its headland or cape, full thirty miles. On arriving here, we found the mouth of Newman's Bay open water, having numerous seals in it bobbing up their heads, this open water making close both to Sumner Headland and Cape Brevoort, and the ice of Robeson's Strait on the move, thus debarring all possible chance of extending our journey on the ice up the strait. The mountainous land (none other about here) will not admit of our sledging farther north; and as the time of our expected absence was understood to be for two weeks, we commence our return

journey to-morrow morning.' Hall added that from Cape Brevoort they could see land extending on the west side of the strait to the north 22° W., and distant about seventy miles.

This record was written on 20th October, and on the following day the journey back to the ship was begun. It was the gallant captain's last trip, little as he suspected it at the time.

Reaching the *Polaris* on the 24th, Hall became very sick after drinking a cup of coffee. Dr Bessels was considerably alarmed when he examined the patient, whose condition for the next few days gave rise to the gravest fears. On the 28th, Captain Hall, then much worse, showed signs of mental aberration; he refused to take medicine and did not recognise those around him. Two days later, he declined nourishment, fearing that an attempt was being made to poison him. He revived a little during the following week; but on the morning of 7th November he sank into a comatose condition, and passed quietly away early the next day, his last words being to Dr Bessels, whom he thanked for his kindness to him. He was buried on shore two days afterwards, the little procession of mourners that accompanied the body to its last resting-place having to pick their way

over the ice with the aid of lanterns owing to the great darkness, although it was then near the middle of the day.

The command of the expedition now devolved upon Captain Budington; but as far as the main object of the enterprise was concerned it was practically at an end, the death of Hall having proved fatal to farther advance. The winter passed without mishap, though for most of the time the vessel, under the ice-pressure, lay on an uneven keel, rendering motion on the decks or sleeping in the berths very uncomfortable. In the spring of 1872 several sledging expeditions were carried out. Dr Bessels and Bryan explored a part of Petermann's Fiord and surveyed the coast as far south as Cape Bryan. In June, Chester and Tyson made boat journeys to the northward, but did not get beyond Cape Sumner, from which point Sergeant Meyer was able to penetrate as far as Repulse Harbour.

Determining to return home, Captain Budington guided the *Polaris* out of her winter harbour; but the trials of the expedition were only now beginning. At the mouth of Kennedy Channel, the ship was beset by ice in the month of August. Drifting steadily in the awful pack, in spite of all efforts to

escape from it, the *Polaris* seemed to be doomed to destruction, and while they did not communicate their fears to the ship's company, the officers were convinced that unless they were able to reach land all on board would be lost. A further cause of anxiety was a leak in the vessel, which gave much trouble.

For two long, weary months, each day full of fears and dangers, and each day appearing to put farther away the prospect of release, the ship drifted with the ice, and at last, as the only chance of life, it was decided to abandon her. Towards the middle of October the final preparations were made for taking to the ice. 'The *Polaris* was drifting along at a very rapid rate,' says the vivid official story. 'Many eager faces looked over the rail and peered into the darkness and the gloom, wondering what would happen next. The sky was threatening. The moon struggled in vain to break through the clouds. Two icebergs were passed in close proximity. Some judgment could be formed by means of them as to the rapidity with which the vessel was moving. One could scarcely help shuddering as he thought of running into one of these gigantic ice-mountains. One or two persons thought that the land was visible; but

it was very uncertain. At 7.30 the vessel ran among some icebergs, which brought up the floe to which she was attached; at the same time the pack closed up, jamming her heavily. It was then the vessel received her severest nip. She shook and trembled. She was raised up bodily and thrown over on her port side. Her timbers cracked with lou' reports, especially about the stern. The sides seemed to be breaking in. One of the firemen, hurrying on deck, reported that a piece of ice had been driven through the sides. Escape from destruction seemed to be impossible. The pressure and the noise increased together. The violence of the storm, the darkness of the night, and the grinding of the ice added to the horror of the situation.'

Amid these terrifying conditions, Captain Budington despaired of finding further safety on the vessel, and gave orders for the stores and provisions to be thrown upon the ice. Realising the critical situation and the necessity for speedy action, the men responded with every ounce of energy they could command, exerting themselves to the very utmost, and performing feats of strength that would not have been possible under other circumstances. Beds and bedding were next transferred



'Good-bye, *Polaris*!'

to the floe; three boats, including the scow, were also lowered and placed upon the ice. This happened on 15th October, within sight of Northumberland Island.

When night came on, the gale was still blowing with terrific force, and almost before any one realised what was happening the vessel suddenly broke from the ice and was carried rapidly away from it, leaving upon the floe nineteen persons, including Tyson and Meyer and several of the Eskimos. The night was dark and stormy, and in a few moments the floe with its freight of human souls disappeared from view; but across the blackness, and through the drifting snow, came the sound of a voice shouting, 'Good-bye, *Polaris*!'

The tragedy had fallen so swiftly that those on board the vessel could scarcely realise what had happened. For a few moments they could only stand in amazed silence; but soon their own condition called for action, for the *Polaris* was by this time leaking very badly, and the men were put to the pumps with the injunction to work for their lives. The water was already lapping over on to the floor of the fire-room. Had it not been checked just in time by the action of the pumps it would in a few minutes more have extinguished

the fire itself, and here in all probability would have ended the story of one section of Hall's unfortunate expedition. Drifting rapidly till midnight, the *Polaris* then ran into broken ice which stayed her progress, and on the following day she was successfully beached in Life Boat Cove, where the winter was passed. As it was no longer possible to remain on the ship, houses were built on shore.

When the summer came round, another attempt to get free from the desolate regions of ice and cold was agreed upon. The *Polaris* was no longer of any service to the expedition, and in her helpless condition was finally abandoned on 3rd June 1873, when in two boats, built under the direction of an officer, the party turned its back on Life Boat Cove and made one more bid for escape. Another series of hazardous adventures now began, their old enemy the ice still resisting their progress to the south, and threatening them again and again with disaster. When crossing Whale Sound, the ice suddenly closed, pressing heavily against Captain Budington's boat, and only the prompt action of the crew in leaping upon a floe and dragging their boat after them prevented its being crushed. The cake of ice on which they had

taken refuge was not more than twice the size of the boat itself, and there the night of terrors was passed, the exposure making the men snow-blind.

Frequent experiences of this sort occurred before they were finally out of danger. On 23rd June, off Cape York, the whaling vessel, *Ravenscraig*, from Kirkcaldy, Scotland, was sighted, and once on board her hospitable quarters the long period of trial and suffering was over, and the little band of explorers was safe at last.

Turning back to the party on the floe, it is not easy to imagine their consternation when the gale drove the *Polaris* away from them. When that calamity happened, most of the men were busily engaged arranging into some sort of order the stores and provisions that had been hastily thrown upon the ice in the hour of danger and panic. Some of the provisions were lost when the ice parted, and the night was too dark and stormy to risk life in going after them. The next day several of the men took to the boats with the intention of reaching the shore and obtaining the assistance of the Eskimos living in the neighbourhood in procuring food and shelter for the party; but it was found impossible to make any headway through the broken ice, and the attempt had

to be reluctantly abandoned. It seemed, however, as if relief would reach them from another quarter, for soon after this disappointment the *Polaris* was seen rounding a point eight or ten miles distant, under steam and sails. Signals were immediately raised, and hope ran high. Surely their comrades on board would see them and come to the rescue. Straining their eyes, they followed the movements of the vessel from which they had so recently parted, anxiously watching for any sign that they had been observed; but the ship passed out of sight, and they were left on the frozen water to do battle with hunger and cold and to face all the unspeakable tortures of an Arctic winter.

The weather, which hitherto had been thick, with heavy snow-showers, cleared up on the 4th, and it was then seen that the floe was entirely surrounded by water, and that it was drifting southward. By the end of the month, the effects of exposure and the want of food began to show themselves. Some of the men were scarcely able to walk. Had it not been for the skill of the two Eskimos, Joe and Hans, in hunting seals, the entire party must have perished. Again and again the timely arrival of a seal saved the starving band from death, and sometimes, in their haste to satisfy the cravings

of hunger, the seal-meat was eaten uncooked with the skin and hair on.

Three months had dragged wearily by, and still the castaways were bearing up under their numerous trials. The first day of the new year (1873) was the coldest experienced on the floe up till that time, and, besides, all the party were in a condition of extreme weakness owing to the lack of food. These dismal conditions were little altered during the month. February came in with a great gale which lasted for several days. On the 21st of that month, for the first time since the beginning of the year, the thermometer rose above zero. But the supply of food was still woefully short, and in order that it might last till April, the daily rations were reduced to seven ounces. Even this limited portion, however, had to be lessened soon afterwards to the very smallest quantity upon which life could be sustained.

By the 1st of April the floe had wasted to such an extent that it was no longer safe, and the party thereupon took to their boat, twelve men, two women, and five children crowding into a tiny craft that had been constructed to carry only six or eight men. At first the boat lay too deep in the water, and a hundred pounds of meat

and nearly all the clothing had to be thrown overboard. For a month that brave little company, that had already passed through so many hardships, braved the dangers of the deep in their frail boat. The frequent pressure of the ice necessitated repeated landings on the floes, and sometimes it was only after considerable difficulty that the landing was effected and the boat dragged up out of the water. On the 19th the party was again seeking shelter on the drifting ice. At 9 P.M. a heavy sea washed over them, carrying away everything that was loose, and scarcely had the women and children been placed in the boat when a succession of seas struck the floe. One of these swept away the tent and most of the clothing. It seemed as if the boat would be the next to go, and if that happened all possibility of escape would be gone. It was necessary, therefore, to make a great effort to prevent such a catastrophe, and standing round the boat the men held on with all their might, remaining in this attitude all through the night until seven o'clock in the morning, doing battle with the angry waves and receiving severe bruises in all parts of the body from the large blocks of ice that were hurled against them out of the boiling sea. Grimly they held on, knowing well

that any slackening of effort would mean destruction. It was a struggle of heroes against the elements, and they fought in silence, the only words that were spoken being brief sentences of encouragement to each other as they stuck to their posts and held on with every ounce of strength.

The next few days brought but little relief. Everybody was cold and hungry; but they were drifting nearer to the track of vessels, and new hope was bearing them up. During the afternoon of the 27th a steamer was sighted, and as she appeared to be bearing down upon the castaways their hearts thrilled with joy. But the joy was short-lived. The steamer failed to see them, and passing from view left the sufferers in their agony. Two days later they had to endure another disappointment, a second steamer appearing about eight miles off, and proceeding on her way without observing them. The next day (30th April), however, brought the long-looked-for relief. In the morning a steamer was seen close to the floe, which was then off the coast of Labrador. She proved to be the sealer *Tigress*, of Conception Bay, Newfoundland, and from Captain Bartlett and his crew the shipwrecked party received every kindness.

And thus was brought to a happy ending the long and terrible struggle that had lasted for 196 days, 83 of which were without the sun, and during which they had drifted 1500 miles. The *Polaris* expedition had not reached the Pole, but the voyage was fruitful in geographical results, and the fact that both sections of the crew, after months of hardships and dangers, had come back alive from the very gates of death overshadowed the disappointment at the failure of the main object of the enterprise, and occasioned the most profound gratitude.

The forces of Nature had again triumphed over man; but man was not yet conquered.

CHAPTER VIII.

WITH NARES AND HIS HEROES.

As the ill-fated expedition of Sir John Franklin in 1845 had stirred the American nation into an active interest in Arctic exploration, so did it for a period of thirty years prevent the further pursuit of Polar discovery by Britain. The many expeditions which for ten years after the disappearance of the great explorer sailed to the frozen seas were exclusively in search of the *Erebus* and the *Terror*; and the tragic end of these vessels having been definitely ascertained, Arctic discovery, so far as this country was concerned, slumbered for over twenty years. It was not so in America, as we have already seen. The impetus to exploration having been given by the generous quest after Franklin, that country entered upon a long series of voyages towards the Pole, competing with Britain in pushing into the desolate regions of the North, and eventually, after perils and hardships incidental to the task, reaching the point which for centuries had been the goal of fearless and hardy navigators.

But if Britain's interest in the Polar seas waned

for a generation after the terrible experiences of Franklin and his men, there were still those who looked with longing eyes towards the 'land of desolation and death,' eager as ever to read the riddle locked up within its icy breast and to know what lay behind the barrier that persisted in defying the attacks of our bravest sons. A few advocates never lost heart, even when the cause of further discovery was practically without a friend. Persistently the Royal Geographical Society kept the project before the Government and the country, urging again and again the claims of a fresh attempt to pierce the mysteries of the Frozen North, and gradually, as the deep impression produced by the disastrous termination to the voyage of Franklin grew less keen, and the enterprise of other nations became more pronounced, public interest began to awaken, and it was felt that the time had at last come when this country must again take her place in the van of Arctic discovery.

The Government decided to equip an expedition, and on 29th May 1875, the ships *Alert* and *Discovery*, under the command of Captain George S. Nares (now Sir George Nares), sailed from Portsmouth on a Polar voyage, the scope and primary object of which were to attain the highest northern

latitude, and, if possible, to reach the North Pole, and from winter-quarters explore the adjacent coasts. Admirably equipped in every way, the expedition was provisioned for an absence of two years, and carried a squadron of 120 officers and men, supplemented by three dog-drivers obtained in Greenland. Everything was propitious at the outset. The Atlantic was crossed in safety, and then steaming along the coast of Greenland, the ships called at several of the northern settlements. Leaving Upernavik on 22nd July, they reached Cape York three days later, taking the 'middle passage' across Melville Bay. Depots were established at various points, thus ensuring a supply of provisions in the event of the expedition being compelled to retreat from Smith Sound, leaving the vessels behind, as had been the fate of other exploring parties.

From Cape Sabine, after passing through Smith Sound, the journey northward was one constant struggle with the ice, both vessels running many narrow escapes from the huge bergs that towered round them on every side. On more than one occasion it seemed as if the expedition were doomed to a premature end amid the immense floes that threatened instant destruction day and night. One evening the ice closed around the ships as they were

carefully navigating their way through a narrow channel, and as the *Alert* was driven down upon a huge berg Nares signalled to Captain Stephenson of the *Discovery* to 'take care of the iceberg.' By skilful and daring seamanship, the *Discovery* escaped the danger; but the peril of the *Alert* was momentarily increasing. With malevolent intent, as it seemed, the gigantic floe bore down on the berg to which the ship was anchored, and in the inevitable meeting of the two frozen masses it appeared impossible for the *Alert* to escape being crushed like an egg-shell. But fortunately, when the impact came, with terrific force, the *Alert* just missed being struck, and soon followed the *Discovery* into a position of safety.

Thus fighting their way through the immense floes that were rapidly drifting southwards, the two ships reached Discovery Harbour on 25th August. There the *Discovery* wintered, while the *Alert*, pushing a little farther to the north, was moored, on 31st August, near Cape Sheridan at Floeberg Beach, in a higher latitude than had ever before been reached by any vessel— $82^{\circ} 25' N.$, $61^{\circ} 30' W.$, and there, on the exposed shores of the Polar Ocean, the long winter was passed.

With the object of establishing depots to the

northward, several sledging parties were sent out by Nares before the winter closed round them; and in charge of one of these Lieutenant Aldrich, on 27th September, succeeded in excelling the latitude attained by Sir Edward Parry in 1827, reaching $82^{\circ} 48' N.$, and seeing from the summit of a mountain, 2000 feet high, an apparently continuous coast-line, extending northwards for a distance of sixty miles to latitude $83^{\circ} 7' N.$ Aldrich's record, however, excellent as it was, was yet to be surpassed by another member of the same expedition.

The long Arctic night passed uneventfully and in comparative comfort, the duties of the expedition being relieved by a series of entertainments which did much to break the monotony and to maintain the spirits of the men. On 18th November, the Royal Arctic Theatre, after being closed for twenty-three years, was reopened. The acting, it seems, was 'excellent,' and 'everything passed off well.' On this interesting occasion, a prologue, written by the chaplain, the Rev. H. W. Pullen, was spoken, beginning with the words:

Kind friends, with kindly greetings met to-day,

We bid you welcome to our opening play;

You, whose indulgent smile, forbids the fear

Of scornful wit or captious critic here.

When spring returned, preparations were made for sledge-travelling, and Nares tells us that in arranging his plans he 'naturally took into consideration the result of our previous geographical discoveries. We had ascertained,' he says, 'that the land to the westward of Cape Joseph Henry trended in a north-westerly direction for a distance of not less than eighty miles from our position; there was no saying whether it might then stretch towards the north or turn off to the southward. The coast of Greenland was in sight, trending to the north-east for about eighty miles; beyond that distance its direction was doubtful. Immediately to the northward was a very heavy pack, decidedly impenetrable for a ship, and of a description which former Arctic travellers had considered impassable for sledges.'

It has already been noticed that in his orders it was impressed upon him that the primary object of the expedition under his command was 'to attain the highest northern latitude, and, if possible, to reach the North Pole,' and the more Nares considered the character of the ice in the neighbourhood, the more convinced he became that the only way to carry out his instructions was by advancing along a coast-line; and that unless they discovered

land trending to the north, neither the ship nor the sledges would be able to advance far in that direction. The great object, therefore, was to discover land leading towards the north, and Nares accordingly decided to explore the shores that were in sight.

As yet, however, it was much too cold to venture far from the shelter of the ship. On 1st March 1876, the temperature sank to minus 64° , with a light breeze from the north-west. 'It is far too cold for human beings,' we find Nares writing in his journal, 'and, judging from the movements of the dogs, for animals also; although they refuse to go into an enclosure, they are glad enough of any shelter obtainable between them and the wind, and the walking-parties were contented with a shorter exercise than usual, every possible kind of face-protector being tried.' Two days later it was even colder, the thermometers registering minus 73° .

In order to communicate to Captain Stephenson his plans for the sledge journeys, and to assign to the *Discovery* her share of the work, Captain Nares despatched Lieutenants Egerton and Rawson to Discovery Harbour, and on 12th March they started off from the *Alert*, accompanied by the Danish interpreter, Neils Petersen, and a team of nine

dogs. With this journey began the disasters that ultimately crippled the entire undertaking. With it began also the heroic acts of devotion and self-sacrifice that deserve to be remembered as long as the romantic story of Arctic courage and endurance continues to find a place on the page of history. The party had been but one day away from the ship when Petersen was suddenly seized with cramp. He was unable to retain food, nothing could keep him warm, and he became badly frost-bitten. Rolling him up in their own warm clothing, of which, at great personal risk, they deprived themselves, the two officers succeeded in restoring circulation. As he was no better on the following day, it was decided to return to the vessel. Overtaken by a violent gale, they found it impossible to travel, and burrowing out a hole in a snow-bank, Egerton and Rawson lay alternately alongside Petersen, in this way keeping some heat in his body.

Resuming their journey on the morning of the 15th, they bravely faced the long march of sixteen miles over the rough ice that separated them from the ship. Once or twice the obstacles in the track were so troublesome that the suffering man had to leave the sledge, and, aided by one of his companions,

trudge along as best he could. To add to the many drawbacks, dogs and sledge—fortunately while Petersen was on his feet—fell into a chasm, and when extricated, after considerable difficulty, the animals rushed madly off, and were only brought to a standstill when Egerton, who bravely clung on to the reins, became wedged between two large pieces of ice. Severely frost-bitten in various parts of the body by the time he reached the ship, Petersen never recovered from the severe shock, and three months later he died from exhaustion.

A few days' rest was sufficient to restore Lieutenants Egerton and Rawson, and once more they set out for the *Discovery*, which they reached in safety, in spite of the bad roads and the numerous other obstacles to progress. They found that everything had gone well on board that vessel during the winter. Nares's despatches were received with enthusiasm, and preparations immediately began for the sledging expedition assigned to the *Discovery*.

On 3rd April, two sledge parties left the *Alert* for northern exploration, and journeying together as far as Cape Joseph Henry, parted there, each to pursue its own route. Glad to be at work again, the explorers took their departure from the ship in

the happiest spirits, confident in the success of their mission, and little dreaming of the sufferings that were to be endured before they fought their way back to the kindly shelter of headquarters. The party from the *Discovery* reached the *Alert* a few days later, and after being joined by several officers and men from her staff, started across the frozen ground on its mission of exploration.

There were thus three parties in all pursuing the important work of investigation. One, under Commander Markham, was to carry out its duties northward from Cape Joseph Henry; another, under the charge of Lieutenant Aldrich, was to explore the north coast of Grinnell Land; while the third, consisting for the most part of officers and men from the *Discovery*, was under instructions to explore the North Greenland shore. During the absence of these expeditions, the coasts adjacent to the ships were carefully examined by parties of officers and men.

Parting company with their comrades at Cape Joseph Henry, which was reached six days after leaving the *Alert*, the band under Commander Markham, equipped with sledges and a couple of boats, and provisioned for an absence of about seventy days, pushed on, according to orders, to

the northward over the ice, with the object of attaining the highest northern latitude, as instructed by the Admiralty, and also of ascertaining the possibility of a more fully equipped expedition reaching the North Pole. It was a trying march, and one beset with extreme difficulties from the very beginning. The ice was almost impassable, and the men had to cut their toilsome way through it with the aid of pickaxes and shovels. It was not surprising that under such terrible conditions the men should show signs of the strain, and very shortly some of them became lame and scarcely able to walk. Neither Markham nor Lieutenant Parr, who was second in command, had ever seen the disease of scurvy; but they were suspicious of this peculiar affliction which was laying low their men one by one, and were convinced by the appearance of things that the much-dreaded trouble was amongst them. But in spite of its presence—for scurvy indeed it was—they resolutely kept their faces to the north, meeting with indomitable pluck and resource the difficulties which surrounded them at every point. On 17th May they reached latitude $83^{\circ} 20' 26''$ N., exactly $399\frac{1}{2}$ miles from the Pole, and cheers were raised when it was announced to the gallant band that

they stood at the most northern latitude ever touched by the foot of man, neither the blinding snow, which had just begun to fall, nor the weakened condition of the explorers damping their enthusiasm at having established a new record for Polar enterprise.

Had the condition of his party permitted it, Markham would probably have forced his way still farther to the north; but in the prevailing circumstances he dared not venture a prolonged absence from headquarters, and consequently on the following day they started on their homeward march. The story of this return journey makes infinitely sad reading. Already weak and disabled, the men could scarcely trudge along; daily their strength declined, and only seven were able to walk by the end of May. It was necessary to reach the *Alert* as speedily as possible in order that the suffering men might receive the medical attention which they so much needed; but the travelling was painfully slow, and, almost in despair, Markham decided to abandon the second boat, even with the possibility of the ice breaking up staring him in the face.

On 2nd June, as Markham's diary subsequently showed, the working party was reduced to only

six men, who were anything but healthy or strong, and two officers. Five men were being carried on the sledges, and four others were just able to crawl after. The routine was this, first to advance the heavy sledge, which was dragged by the whole available party, numbering eight, then to return and bring up the two other sledges, four men dragging each. To complete the difficulties, the route was sometimes lost, and the men had to undertake the arduous task of road-making.

By 5th June the outlook had become as black as can possibly be conceived. At the rate of progress it would take at least three weeks to reach the ship, and judging from the condition of the invalids it was perfectly obvious that they could not live for that time unless help reached them. Something must be done and at once. Desperate diseases always call for desperate remedies. There seemed but one way out, and that was for some one to risk his life to save his comrades by making a forced march to the *Alert* and sending relief back. Lieutenant Parr nobly volunteered for the task, and just as nobly fulfilled it. Without a thought of self, and in spite of bodily weakness consequent on the long exposure and hardship, he started out on his trying march southwards.

I like to picture the scene, for it is one in which heroism is the dominant feature. To do or die was the object of the brave officer. He would reach the ship and send help to his dying companions, or he would fall exhausted on the pitiless ice, and both he and they would perish. One can see the determination in his eye as he tramps along with steady stride, never for a moment slacking in his purpose, and knowing that upon his haste and endurance depended the fate of those who were lying helpless in the snow. Behind is the little band, broken down and suffering, looking to him for succour; far away in front lies the ark of salvation, in it the comrades who are unconscious of the tragedy going on; and out on the wastes, doing solitary battle with the deadly elements, is the connecting link between the two, struggling with Titanic energy to bridge the gulf that threatens him at every step. Twenty miles of the terrible journey have been covered before Parr makes a brief halt, and then it is only to have a hasty cup of tea. Then he resumes his march, his resolve more fixed than ever, for he is encouraged by his progress, and there must be no slacking of energy till the goal is reached.

On the evening of the second day Parr reached his

destination, having completed his long and solitary walk of twenty-seven miles within twenty-four hours, and passed at once to the cabin of the commander, who read disaster in his face before he had uttered a word. The story was quickly related, and no sooner was it told than preparations for relief were in rapid progress. Almost immediately, Lieutenant May and Dr Moss, mounted on snow-shoes and accompanied by a dog-sledge bearing the necessary medical stores, were hastening to the rescue, while a larger party, commanded by Nares himself, followed before midnight. May and Moss, by making a forced march, reached Markham's camp within fifty hours of Parr's departure, and though they were too late to save the life of George Porter, who had passed away a few hours before their arrival, they were able to give to the others the assistance of which they stood so much in need.

On the following day, Nares and the men of the relief-party arrived on the scene, and their presence had a reviving and stimulating effect on the sufferers. 'It is difficult for a stranger to the surrounding circumstances and scenery,' Nares afterwards wrote, 'to realise the condition and appearance of these men who, in spite of their truly

pitiable state, were still making slow progress towards the ship. On my first meeting them, Markham and five men were dragging two sledges, three hands at each, each sledge being freighted with two invalids and as much of the tent furniture as was requisite to keep them warm and to form as comfortable a couch as the circumstances and the rough road permitted. Lying on the top of the third sledge, which was laden with the rest of the baggage and the provisions, and left about half a mile in the rear, was a fifth invalid. Struggling along over the uneven, snow-covered ice as best they could were four other men whose limbs, becoming daily more cramped, foretold that they must shortly succumb; they were gallantly holding out to the last, in order not to increase by their weight a moment sooner than could be avoided the already heavy loads being dragged by their slightly stronger companions. These poor fellows were in the habit of starting off each morning before the main party, knowing that if they experienced a bad fall or came to an unusually deep snowdrift they could not recover themselves without help. Frequently the sledge party overtook them lying helpless on the ice; but once raised on their legs, with a smile and

some cheerful expression, again they would start on their painful and weary journey.

‘With the exception of Markham, who dragged to the very last, and, in addition, had to pioneer a way for the sledges before the daily start, the others remaining on the drag-ropes were in a great measure dependent on the leaders, John Radmore and Thomas Jolliffe. Although these two men were the most vigorous of the sledge crews, they were greatly enfeebled; yet rather than resign the post of honour as leaders, which entailed the extra labour of treading down a pathway through the snow, they journeyed along supporting each other arm-in-arm, and by keeping the drag-rope taut afforded a means of support for their more disabled companions in the rear.’

While these hardships were being endured by the party under Commander Markham, similar difficulties and privations had fallen to the lot of Lieutenant Aldrich and his men. Their journey along the north coast of Grinnell Land was rendered exceedingly difficult by reason of the hard travelling and the presence of scurvy in the ranks. The deep snow through which they were forced to make their way told heavily on the men, the double journeys were most discouraging, and ‘their

looks of disappointment,' as Aldrich expressed it in his diary 'when after nine hours' labour they found themselves only two and a half or three miles from where they started show how much more they would do if they could.' The ranks became so reduced that out of the eight members comprising the party only two, Aldrich and another, were able to walk. Other two, with the assistance of a staff, were doing their best to struggle along, while the four others, after 'holding out as long as human nature permitted,' had to be carried on the sledges. Painfully and slowly this suffering band fought their way back until they came within half a mile of the depot at Cape Joseph Henry. It seemed a physical impossibility to proceed farther, and the only strong man of the party, Adam Ayles, was just on the point of setting out alone for the *Alert*, as Parr had done from the other party, when the relief-band, consisting of Lieutenant May and three men, despatched by Nares in search of Aldrich and his comrades, 'most providentially' fell in with them, and brought them back in safety to the ship.

This meeting took place just in time to avoid disaster. So close a race were they running with the season, Nares tells us in his narrative, that

the day after they had crossed Black Cliff Bay the thaw set in; 'and Parr and Feilden, when returning only twenty-four hours afterwards, were so frequently embedded up to their middles in the wet snow and cold water which covered the surface of the sodden floe that they could scarcely recover themselves. They reported it quite impassable for any men not in full health and strength, and totally impassable for heavy sledges.'

No better fortune attended the third party, which had been detailed to explore the north coast of Greenland. Composed mainly, as we have seen, of officers and men from the *Discovery*, this party was in charge of Lieutenant Beaumont. It was not long before one of the men, James Hand, fell a victim to scurvy, and as he became alarmingly ill he was despatched to the depot at Polaris Bay on a sledge under the care of Lieutenant Rawson. Two other members of Rawson's little party were similarly attacked, and, being unable to work, it was left to Rawson and a marine named Rayner to drag the sledge over the heavy roads as best they could. To add to the misfortunes, the provisions gave out long before the destination was reached, and Rawson himself, attacked by snow-blindness, had for several days to march blindfold.

Polaris Bay was reached at last; but Hand, who had been daily growing weaker, was by this time beyond recovery, and he expired a few hours after the arrival at the depot.

The other invalids continuing to make satisfactory progress at the camp, Rawson determined to leave them in charge of Lieutenant Fulford and go after Beaumont, fearing that things might have gone badly with him and his men. Taking with him Dr Coppinger and a dog-sledge, he hastened away across the ice.

As Rawson feared, fate had been dealing unkindly with Beaumont's party. Amongst its members also scurvy had been doing its deadly work, until most of the men were scarcely able to stand upon their legs. Every expedient was tried to make it easier for the invalids, but nothing seemed to better their condition. The pain in their limbs made walking an agony, and one day, when a halt was made for a meal, two of the men crawled for two hundred yards on their hands and knees rather than walk more than was necessary through the awful snow. But tired and sore as all were, there was not a word of complaint; amid it all they remained 'cheerful, hopeful, and determined.'

With sick men on the sledge, and others almost

as bad struggling along in their suffering, the condition of the party had become desperate. Repulse Harbour, at the mouth of Robeson Channel, was reached on 10th June, by which time only Beaumont and Gray were able to work. There a change in the plans was rendered necessary by the terrible straits to which the band were reduced. Up till now, it had been Beaumont's intention to return to Polaris Bay; but at this critical stage he determined to alter his course, and make a dash for the *Alert* across the frozen channel, as upon the speed with which relief could be obtained depended the lives of the entire party. Abandoning everything that was not absolutely indispensable, the little band, leaving behind them the Greenland shore, began the hazardous journey across the channel. But this route was soon discovered to be impracticable. The ice was rotten, and the great pools of water threatened danger. Beaumont would have risked the crossing, even under these conditions, had his men been in a fair state of health; but ill and enfeebled as they were, it was quite conceivable that the passage might mean death to all. Accordingly, disappointed and discouraged, they made their way back to the land, to face anew the terrors of hardship and disease.

No wonder, in view of this fresh blow to their hopes, that Beaumont describes 11th June as the very darkest day. Forty miles away lay Polaris Bay and safety; but only Beaumont and Gray were fit to drag the sledge, and it did not seem possible that the distance could ever be traversed. Hope, however, was not yet abandoned; there was no sitting down in lamentation and idleness. As long as the breath of life remained in their bodies, they would struggle on. Taking the provisions from the depot in which they had been placed when the crossing of Robeson Channel was attempted, they resumed the toilsome march, the sufferers growing weaker all the time. Painfully they made their way through M'Cormack Pass, a very hard road of rocks and water, the work becoming harder on account of the narrowness and steepness of the passes. At one point the sledge had to be unloaded, and the sick lowered down separately in the sail. Reaching Newman Bay, the travelling on the floe was a great relief after the difficulties of the roads already traversed.

By the 24th it was evident that the journey could not be continued. The limits of endurance had been reached, and the brave men had no more strength left in them. 'On this day,' as Lieutenant

Beaumont has put on record, 'we started for our last journey, as I thought; for, finding that Jones and Gray were scarcely able to pull, I had determined to reach the shore at the plain, pitch the tent, and walk over by myself to Polaris Bay to see if there was any one to help us; if not, go back and, sending Jones and Gray, who could still walk, to the depot, remain with the sick and get them on as best I could.'

It was not necessary, however, to carry out this plan, for help was nearer than they knew. As they plodded along in their extremity over the water-sodden floe towards the shore, Beaumont saw something moving on the land. He scarcely dared to hope that relief had reached them at last; but a little later he was able to distinguish a dog-sledge and the figures of men, and shortly afterwards he had the great joy of meeting Rawson and Coppinger, whose errand of mercy had thus its justification and reward. Thank God Harbour was reached on 1st July, and the trials and sufferings were practically at an end; but for one of the men, Charles Paul, it was the last journey of all, death relieving him of his agonies soon after reaching the camp.

Meanwhile, Nares had decided to return to

England. On board the *Alert* alone twenty-seven men were under treatment for severe scurvy, and others were so weak that they could not be depended on for duty. The complete break-down of the sledge parties, the absence of land to the northward, the impenetrable character of the Polar pack, and the obvious fact that it was quite impossible to reach the Pole by sledging from any position attainable by the ship, were factors that Nares could not afford to ignore, and he decided to give up the exploration and proceed to the southward as soon as the ice should break up. Looking at the awful experiences through which his men had passed, he could not face another winter in these regions. The expedition was thus practically at an end. It had, it is true, not accomplished all that had been hoped; but it had not by any means been a failure, for, among other things, it had 'outlined the entire northern coast of Grinnell Land, added nearly a hundred miles to the Greenland coast, pushed a British vessel into the highest known latitude, and planted the Union Jack, both on land and sea, nearer the Pole than ever before.'

After eleven months' imprisonment in the ice, the *Alert* left Floeberg Beach on 31st July 1876,

and retracing her course down Robeson Channel anchored alongside the *Discovery*. Rounding Cape Lieber on 20th August, both vessels steadily worked their passage southwards, careful navigation bringing them safely out of the dangers of the ice-strewn waters. The open sea was reached on 9th September; the Arctic circle was recrossed on 4th October, and, finally, Portsmouth Harbour was entered on 2nd November.

And thus ended another futile effort to reach the North Pole, which, in the opinion of Nares, was unattainable by the Smith Sound route.

It was disappointing; but every path of achievement is strewn with its defeats and disappointments. The Pole was still an alluring mystery, standing unconquered in its solitary grandeur. But the battle was not yet over, and many other stout-hearted explorers were to fall victims upon the frozen altar before the foot of man passed into the glittering chamber of the Farthest North.

CHAPTER IX.

THE FATAL 'JEANNETTE' EXPEDITION.

It is astonishing how consistently the record of defeat and disaster runs through the history of Arctic exploration. Secure within its kingdom of death, the Pole continued to baffle every one who aspired to enter its shimmering portals, sending them back to tell anew the story of failure and disappointment. It might have been supposed that, smarting under the long series of rebuffs, discouraged navigators would have sought some other field for their energy where the struggle was less keen and the reward more certain; but failure only seemed to lend an added stimulus to further achievement, and to intensify the desire to overcome the barrier of ice that blocked the way to the great secret of the North.

Lieutenant George Washington De Long, of the United States Navy, who made the next attempt on behalf of America, had carefully studied the conditions prevailing in the Arctic regions, and had formed theories of his own, which he was bold enough, when the time came, to translate into

action. There were three routes by which, in his opinion, a successful effort might be made to reach the Pole—Smith Sound, the east coast of Greenland, and Bering Strait. He selected the last, believing in the existence of a Japanese current running north through Bering Strait and onwards along the east coast of Wrangel Land, then commonly believed to be a vast continent stretching far to the north, but which he subsequently proved to be but a small island of insignificant proportions. The warm water of this current, it was urged with much confidence, would open a way along the coast-line of Wrangel Land, possibly to the Pole itself; and as whaling vessels when there locked in the ice had drifted northwards, it was concluded that the current set in that direction. This, De Long argued, would help explorers to reach higher latitudes; but it would also, as he was equally willing to admit, make it more difficult for them to come back—the truth of which admission he was eventually to prove in the most tragic manner.

Supported in his enterprise by private funds, De Long spent some time in a quest for the right kind of vessel, purchasing at last from Sir Allen Young his Arctic yacht *Pandora*, and changing her name to the *Jeannette*. Well equipped for her

mission, the *Jeannette* sailed from San Francisco on 8th July 1879, and steaming her way northwards towards Wrangel Land found herself, by the beginning of September, among the drifting ice-floes. Watching his opportunity, De Long steered his ship into the ice-pack, thus boldly putting to the test his theories with regard to the drift which he was optimistic enough to believe would carry him to his goal. For a few days he sailed about in the floating mass, and then the ice closed around him, and the *Jeannette* was locked in her frozen prison, to remain in that deadly embrace until, two years later, she was crushed between the floes, leaving the brave men who had patiently shared her fortunes homeless on the terrible ice.

The winter, which set in rapidly, passed in comparative comfort. There were frequent gales, some of them of a destructive character; the ice was restless during part of the time, the ship experiencing many strains and jars. On 14th November the sun disappeared from view, and was not again seen till the end of January, the whole of which month was full of danger to the *Jeannette* and her occupants. Threatened by the great masses of grinding ice, rising in some places to a height of fifty feet, which enclosed her on every side, the

vessel seemed doomed, and it looked as if she would have to be abandoned. But the danger passed for a time, and, remaining in her chamber of frozen blocks, she drifted with the merciless ice till the shore of Wrangel Land, which had up till that time been visible, disappeared from view towards the end of February.

The summer came and went, and still the explorers were surrounded by the icy walls which offered no channel of escape. The life of weary inactivity was telling upon the spirits of the men, and even De Long himself was discouraged by the long imprisonment. Already they had spent a trying year in the grip of the floes, and as another winter was rapidly approaching it was only too obvious that the prospect of liberation was as far removed as ever. Soon the long night of darkness once more fell upon the disheartened party, and they waited with what patience they could command for the return of the daylight, hoping that with it might come some alleviation of the depressing monotony which was so hard to bear.

The steady drift northwards brought the *Jeannette* again within sight of land. On 16th May 1881, to the great relief of all on board, including the commander, an island was seen in the distance, to

which De Long gave the name of Jeannette Island; and eight days later, land was again seen, and a party going off from the ship to investigate it found it to be an island, and named it Henrietta Island.

About the beginning of June, it was apparent that a change was coming over the situation, and that a crisis might be upon them at any moment. The ice pressed more severely than ever upon the vessel, causing the timbers to crack and seams to open, and every one on board was convinced that the chances of the *Jeannette* holding together under the circumstances were very remote indeed. De Long and his comrades were considering what it was best to do, whether to leave the ship or wait for further developments in the doubtful hope of the pressure lessening, when the moving floes, bearing down upon the boat and crushing her between them, removed the question out of the region of debate, and made instant action imperative. All around the ice was splitting up, and jammed by the huge masses the *Jeannette* lay in a hopeless position. On 12th June orders were given to abandon the ship. There was no panic, for such a contingency had long been foreseen, and every man knew his duty, and set about performing it.

The colours were hoisted to the mast-head, boats, sledges, and provisions were lowered on to the ice, De Long calmly superintending these operations from the bridge, smoking his pipe the while as if he had no part in the tragedy going on around him. The ship heeled over, even while this work was being carried out, until it became impossible to stand on deck without holding on to something. At last, when all the indispensable articles had been transferred, De Long followed his men on to the ice, being the last to leave, and waving his cap and crying, 'Good-bye, old ship!' as he leaped to the floe to join his companions.

Deprived of the shelter of the *Jeannette*, it was not a cheering prospect that faced the stout-hearted band. They were five hundred miles from the mouth of the Lena River, the nearest point of succour. Some of the men were ill, and the food-supply was dangerously low; but hastily putting aside the dismal outlook, they set about preparing a camp, and then lay down to sleep, forgetting the troubles of the day just ended and leaving the morrow to take care of itself.

A few hours later, the giant floe split with a noise like thunder, waking the camp and bringing to the much-tried party a new set of terrors. One

crack came directly into the camp through De Long's tent, and 'had it not been for the weight of the sleepers on either side of the rubber-blanket,' Melville tells us, 'those in the middle must inevitably have dropped into the sea. As it was, they were rescued with great difficulty, and in an instant the camp was alive again. Although the boats, sleds, and provisions had been placed close to the tents to avoid separation by just such a happening as this, we now found ourselves driven away from them. Boards were at once thrown across the crack, nimble feet sped back and forth, the sleds and boats were successfully jumped over, and when the gap had widened beyond the length of the planks a way was discovered around it. The provisions recovered, our tents were quickly shifted back from the edge of the floe, and we were soon dozing again in our sleeping-bags.'

When the camp awoke there was no ship, the *Jeannette* having sunk about four o'clock in the morning, and there upon the cruel ice, far removed from a place of safety, stood the gallant band, about to begin the desperate fight that for most of them was to end in death. But as yet they had not a full conception of the horrors that lay ahead, and, like men, they faced the unknown with

a smile upon their faces and with hope in their hearts.

Almost a week was spent in preparation, and then began the long and trying journey towards the south. It was hard dragging that had to be performed over the sodden snow that soaked the men as they marched; but they could not risk leaving anything behind. The load consisted of two cutters, a whale-boat, the sledges laden with tents, and provisions to last for sixty days. Owing to the heavy hauling it was necessary to travel the same road several times. Frequently the sledges sank in the soft snow and broken ice, and only by combined effort could they be extricated. With the view of lightening the difficulties of the march, De Long altered the hours of travelling, performing the journey by night instead of by day in the hope that the track, in the absence of the sun's rays, would be more firm and therefore easier to traverse. But in spite of the hardships of the journey and the almost daily wettings, the men pulled with wonderful cheerfulness, and although they wore the soles of their moccasins right through to their stockings, and sometimes stood with bare feet on the raw ice, not a word of complaint passed their lips.

These, however, were not by any means the only discouragements that had to be faced, for every day had its own peculiar trials and disappointments, some of them even more serious than the men knew of at the time. On 25th June, De Long made the startling discovery, as a result of his observations, that although they had for the preceding week been travelling steadily towards the south, they were actually twenty-eight miles farther to the north than when they started, proving conclusively that the ice was bearing them to the north at a greater rate than they were able to travel in the opposite direction. A change of course from south to south-west was immediately decided upon, and about a week later De Long learned from another observation that the alteration of route had been successful, that they had made good twenty-one miles, and were approaching nearer to the shores of Siberia.

Land and water were sighted on 11th July. The party landed on what proved to be an island, and De Long, taking possession of it in the name of God and the United States, named it Bennett Island. The explorers remained there until the boats were repaired, and then once more resumed their weary and perilous journey. Their next

landing was on one of the New Siberian Islands, where a camp was pitched on a mossy plain close to the shore. Again they left land behind and embarked on the water, De Long commanding one of the cutters and Lieutenant Chipp the other, while Chief Engineer Melville had charge of the whale-boat. Up to a certain stage the dangers and difficulties of the journey had been confined to the snow and ice; now these were transferred to the water, a change that did not make for increased comfort or safety. The cutter containing Chipp and his men, being smaller and slower than the other two boats, was unable to make the same progress through the waves, and was soon left in the rear, but again joined the others, who had waited for their missing companions on an ice-floe, just as they were beginning to fear that they had been lost in the gale.

Sometimes on an island, but for most of the time in their boats on the water, the brave party fought their way along, sitting all the while in cramped positions and bailing the water out of the boats to keep them from sinking. Dodging the sharp edges of the ice as best they could, and taking advantage of every opening in the floes, the three boats rode the angry waves, carrying all possible sail and

making, on the whole, a fair measure of progress. But Chipp's cutter was not behaving as well as he had a right to expect, and he complained about her condition. The weather was still very stormy, and it was quite evident that with such wind blowing it would not be safe for the boats to risk crossing the open sea between the islands and the coast of Siberia if the sledges were retained on board, and accordingly De Long directed that they should be broken up into firewood and the pieces stowed in the boats.

Shut in for some days by the drifting pack which prevented advance by water, the situation of the explorers took on a more sombre aspect than ever, for not only was the winter closing in around them, but the provisions were nearing an end, and the islands which lay ahead were without inhabitants. De Long, Chipp, and Melville discussed the situation, and decided what they should do in the event of drifting through the channel between the islands of New Siberia and Thadeoniski, unanimously agreeing that they would proceed from point to point along the south side of the islands until they reached the south-west point of the island Kotolnoi, thence to Stolboi, to Wasilli, to Simonoski, and finally to Cape Barkin at the Lena

Delta, where, according to the markings on their charts, they confidently expected to find native houses.

Once more in their boats, they proceeded on their journey, the sea running high and the waves constantly washing over them, at one time in clear water, at another in the midst of a whirling mass of broken ice, sometimes pulling for their lives to escape destruction from a floe, and all the time on an allowance of food that barely sufficed to keep life in their bodies. It was by this time almost the middle of September, and hope, so long dimmed and uncertain, was beginning to return, as Cape Barkin, the point which they desired to reach, was now less than ninety miles distant. Just before re-entering the boats, after a brief halt, De Long asked both Chipp and Melville to keep within hail, if possible, and repeated his instructions as to the course to be pursued should they be separated. 'Make the best of your way,' he said, 'to Cape Barkin, which is eighty or ninety miles off. Don't wait for me, but get a pilot from the natives and proceed up the river to a place of safety as quick as you can, and be sure that you and your parties are all right before you trouble yourselves about any one else. If you reach Cape Barkin you are

safe, for there are plenty of natives there winter and summer.' Then addressing himself to Melville, he said, 'You will have no trouble in keeping with me; but if anything should happen to separate us, you can find your way in without difficulty by the trend of the coast-line, and you know as much about the natives and their settlements as any one else.'

The boats had not been long on their way before the sea rose considerably, and by evening there was such a hurricane blowing that it seemed utterly impossible to live through it. Attempting to slacken speed and thus keep in the wake of the first cutter, according to orders, the whale-boat narrowly escaped being swamped; and as Melville was engaged in his fierce fight with the elements, he noticed that De Long was gesticulating to him and shouting something which could not be heard above the roar of the wind and waves. Shouting down the wind to his commander that he must either run or swamp, Melville eagerly waited for some sign of reply. His words seemed to reach De Long, who, realising the imminent peril of the whale-boat, waved his arm and signalled her onward. Under additional sail the whale-boat then leaped forward, and speedily out-distanced the first cutter.



Signalled her onward.

Looking back to ascertain the whereabouts of the cutters, Melville saw Chipp's boat, in the far-off dim twilight, rise for a moment on the crest of a wave and then sink out of sight. Keeping his eye on the place where he saw her disappear he anxiously waited to see her come again to the surface; but though the waves rose and fell around the spot the boat was not again seen, and as nothing further was ever learned about the cutter's fate Melville was convinced that that was the moment when she took her final plunge, burying beneath the tossing waves the lieutenant and his men.

Meanwhile, De Long's cutter was keeping afloat with the greatest difficulty. Much water was shipped, the mast and sail were carried away, and, tossed about on the tempestuous sea, the helpless boat was in momentary danger of sinking. At last, after four awful days of misery, every minute of which threatened death, the cutter came within sight of land, and when about a mile from the Siberian shore she ran aground. A raft was hastily constructed, and pushing it through the frozen water, the wet and exhausted men gradually reached the land.

They had escaped the terrors and dangers of the

sea; but the terrors of the land, just as grim and awful as any yet experienced, had yet to be faced. Utterly worn out, they lay down on the ground to sleep, and rose up in the morning, soaked to the skin, to meet the miseries of cold and hunger. Leaving everything behind that could possibly be spared, they set out in search of a settlement where they could find shelter and food. It was a pitiable procession. There was not one strong man in the company, for the long battle on the floes and on the sea, combined with the want of food, had drained their strength till they could scarcely crawl. Slowly and feebly they pushed on over the barren ground. They had little to eat, and already some of the party were falling down in their weakness. Reaching a couple of deserted huts, after being several days on their way, they rested for three days, and then, feeling slightly refreshed, resumed their toilsome march. One day a deer was shot, giving them enough to eat for a few days. On they tramped till not a scrap of food remained, and in desperation their dog was shot to provide them with a meal. Completely exhausted, one man died, and his companions, too weak to bury him, dropped him into a river. Seeing the terrible state of their comrades, two of

the men, Nindemann and Noros, started off ahead in the hope of finding help.

It was now the middle of October, and winter, with all its terrors, held the broken men in its fatal grip. There was nothing to eat, and unable to continue the struggle, they sat down to wait the end. One by one the little party, that had undergone so many hardships and fought so hard for their lives, were overcome and lay down to die, one of them passing away in his sleep as he lay between De Long and the doctor. As long as he was able to hold a pen, the brave leader noted in his journal the deaths of his companions, the last entry being on 30th October, when he recorded the fact that four of the men had died since the 28th. There the tragic story ends. On the frozen ground lay the bodies of commander and men, the latest victims of that awful land of desolation. Like so many others before them, they had hoped to conquer the secrets of the Frozen North; but where they looked for victory and honour, they found defeat and death.

Little more remains to be added with regard to the fate of the *Jeannette* expedition. After many buffetings by wind and waves, the whale-boat succeeded in reaching land, without a man missing,

and falling in with some natives Melville and his men were kindly treated. Nindemann and Noros, pushing on from De Long's party, were reduced to terrible straits before they had gone far on their journey. Unable to find food on the desolate wastes, the famished men soaked and burned and then ate some pieces of the sealskin trousers which the former was wearing. Coming to a deserted hut on 19th October, they found a small quantity of mouldy fish. This they ate, and were afterwards taken seriously ill. In their extremity they met an Eskimo, who brought them to his friends. They tried to make the natives understand that they wanted help for their comrades, but all their efforts in this direction failed. At a larger settlement, called Balun, to which the Eskimos escorted them, they came across Melville, who, hearing of their arrival, had hastened to meet them. Melville heroically endeavoured to go back on the tracks of Nindemann and Noros, hoping that he might yet be in time to save some of De Long's party; but the difficulties that beset his path rendered the effort unsuccessful. In any case, the men whom he sought to relieve had passed beyond the reach of human help. A little later on, Melville and Nindemann made their way back to the spot at which

death had overtaken their companions. They found the bodies, and buried them; but they were not permitted to lie long in their northern grave, being soon afterwards brought back to America for interment there.

And thus another expedition had ended in disaster, leaving the secret of the Pole still unsolved.

CHAPTER X.

HEROISM AND STARVATION AT CAPE SABINE.

AMERICAN expeditions to the Polar regions had already discovered by experience what the British explorers had learned much earlier—that the quest of the Pole involved not only peril and hardship, but intense suffering and death, and that they who ventured into the vast wilderness of ice and snow must be prepared to meet, with a brave heart, any calamity that the fates might send them. Even while De Long and his men were battling for their lives amid the ice-floes of the frozen land, another expedition from the United States, under Lieutenant Adolphus G. Greely, was on its way towards the Pole to meet with a fate no less terrible than that which befell the crew of the unfortunate *Jeannette*. Greely's expedition, like so many others before it, began hopefully; but it ended in a tragedy. A combination of circumstances, practically without a parallel in the history of Arctic exploration, beset Greely in his command of the enterprise. The non-arrival of the relief-ship, unpleasantness and insubordination among his party, necessitating the

adoption of extreme measures, and, finally, the battle with the elements and the longer struggle with starvation and death—all these opposing forces might well have produced failure, and yet before the last days of wretchedness and misery settled down on the famished band at Cape Sabine, a new record of northern latitude had been established, and the scientific work accomplished was valuable enough to be subsequently described as of the ‘first importance.’

This expedition arose out of the participation of the United States with the principal European countries in a system of circumpolar weather-stations, the unsatisfactory knowledge with regard to the Pole, and the conditions existing in its neighbourhood, inducing combined action in the hope of more definite results. On 7th July 1881, the steamer *Proteus*, chartered for the voyage, left St John’s, Newfoundland, and safely reached Lady Franklin Bay, in Grinnell Land—latitude $81^{\circ} 44' N.$, longitude $60^{\circ} 45' W.$ In its progress northward the expedition experienced little opposition from the ice; but the landing in Discovery Harbour was barred by a great frozen wall, which the *Proteus*, attacking time and again with her iron prow, gradually broke down. A site for a

house was soon chosen, and to the station Greely gave the name of Fort Conger, in honour of the American senator to whose efforts the expedition was chiefly due.

After landing the stores and equipment, the *Proteus* steamed southward, fighting her way out of the ice-blocked harbour after several unsuccessful attempts to break down the ice obstructing her path. She was to return in the following summer with fresh supplies, so that the farewell, it was thought, was but for a short time. With the ship's departure the expedition settled down to its winter's work. Occupying much the same position as the *Discovery*, one of the two vessels in Nares's expedition six years earlier, the system adopted was very similar to that of the English party, some of the sledge journeys being along the same routes.

Scarcely was the house completed before field-work was in operation, though it was not carried out on a large scale, the serious sledge expeditions being deferred till the spring. The sun took its departure on 14th October, and was absent for 137 days, leaving the explorers in the awful darkness of the Arctic winter, a darkness so intense and so prolonged that it mentally affected some of the men, who exhibited signs of irritation and depres-

sion, and their appetites for a time left them. Strange as it may seem, the Eskimos were even more seriously affected than the others, showing symptoms of restlessness and uneasiness, which their comrades did their best to counteract by means of cheerful intercourse. A semi-monthly newspaper, *The Arctic Moon*, edited by Lieutenant Lockwood, was prepared with the view of providing some little amusement and diversion; but it seems to have only partially succeeded in its laudable object, for it lived for only two months, 'dying,' says Greely, 'for lack of interest.' A violent storm, which visited the camp on 16th January, threatened to demolish the house; but its protecting snow-banks offered a stubborn resistance to the hurricane, and prevented the catastrophe which, with the gale blowing at a velocity of sixty-five miles an hour, seemed inevitable.

The return of daylight, about the end of February, was the signal for a renewal of the sledging expeditions. It had been Greely's original intention to perform the greater part of this work with dogs, of which three full teams had been purchased in Greenland; but of the twenty-seven animals shipped only twelve were alive at the end of 1881, the others having died from disease. Early

in the season, Dr Octave Pavy, the surgeon of the expedition, made a sledge journey along the eastern coast of Grinnell Land to its extreme northern point, near Cape Joseph Henry, while other field-parties worked in the interior, discovering abundant deposits of coal within a few miles of the station. In April, Lieutenant Lockwood and other members of the party crossed Robeson Channel to the Greenland coast, reaching, on 5th May, $83^{\circ} 24' 5''$ N., the farthest north hitherto attained by man. These journeys were not conducted without the usual accompaniment of danger and adventure. Pavy had to struggle against the difficulties of broken hummocky floes and open water; while Lockwood and his companions encountered a terrific gale in Robeson Channel, and for two days had to remain in the shelter of their sleeping-bags, being unable during that time to do any cooking owing to the tremendous force of the storm. At one point the wind was so powerful that it lifted the dog-sledge, with its 200-pound load, high into the air, and, as the tents could not be pitched, the men made themselves as comfortable as was possible under the trying circumstances by burrowing into the snow. But yet, in spite of these and other drawbacks, the brave little party pushed northward till they had

penetrated four miles nearer to the Pole than Commander Markham of Nares's expedition. At this point the Stars and Stripes were proudly hoisted, and to America's honour now stood the credit of having taken from Britain the record for Arctic attainment, which she had held for the long period of three hundred years.

The summer came and went without any sign of the relief-ship, and, winter again approaching, the explorers settled down to face it with what patience and courage they could command. It was obvious, as Greely has said, that the second winter could hardly pass as pleasantly as the first. 'The novelty of Arctic service had passed with all, while the unvarying routine and wearisome monotony could not but more deeply depress the spirits of the men. The non-arrival of the visiting steamer not only in itself threw a gloom over the party, but it necessitated a restriction in the use of certain articles of food, and the feeling alone of being on an allowance is irksome to many men.'

The winter passed uneventfully. There was little to do at the station—little, in fact, that could be done; but Greely's active mind could not but reflect on the course to be adopted should the relief-ship, for the second time, fail them. It was not ■

pleasant subject to think about; but he could not close his eyes to the fact that what had happened once might easily happen again, and if, as he feared, the disappointment of the past summer was due to some cause that could not be provided against, it was just possible that the coming summer would still find them without the needed relief. And so, in his own mind, he mapped out his course and prepared his plans.

Further sledging expeditions were undertaken in the spring, and then in the summer occurred, as Greely himself describes it, 'the only marked breach of discipline during our two years at Conger.' The unpleasant incident happened with the surgeon. Quite frankly, Greely declares that 'the Lady Franklin expedition was not happy in its surgeon.' Dr Pavy, he goes on to say, 'was an excellent physician, but his previous Bohemian life made any restraint irksome, and subordination to military authority particularly obnoxious.' Why he should have acted so is not stated, but we are told that 'the surgeon, who had declined to renew his contract that expired on 20th July, refused on the 19th to turn over to Lieutenant Lockwood his diary, sealed and addressed, for transmission to the chief signal-officer. As Dr Pavy insisted that he

was out of service, and refused positively to obey my orders, it became necessary to place him in arrest, with permission to take such exercise as was necessary within a mile of the station. Every consideration was shown him, notwithstanding which he broke his parole.'

That is, indeed, a severe indictment. Perhaps it was deserved; but, at the same time, we must remember that had Dr Pavy lived through the miseries of Cape Sabine, he would doubtless have had some explanation to offer and something to say on his own behalf. In his preface to *Three Years of Arctic Service*, Greely is obviously on his defence, and asserts that 'during the nine months I commanded a party of suffering, starving, and dying comrades I never treated any man other than he justly merited.' The unfortunate incident is mentioned here simply to show that, in addition to the other troubles of the party, there existed unhappy relationships which must have added materially to the difficulties of the situation, and in this respect Greely had to face a set of circumstances from which the leaders of other Arctic expeditions had been mercifully free.

By the end of July everything was in readiness for retreat from Fort Conger, and an order was

issued announcing that the station would be abandoned on 8th August, if no vessel should arrive. Reviewing what had been accomplished during their stay there, Greely sums it up in these words: 'We had experienced two years of unequalled cold and darkness, but the amount of work done was quite extraordinary. The sun had shone 453 days, and on 262 days from one to three sledge parties had been in the field on journeys entailing from two to six days' absence and 3000 miles of travel. Our explorations covered $3\frac{1}{2}^{\circ}$ of latitude and 45° of longitude, one-eighth of the way around the globe above the 80th parallel. To the northward a latitude never before attained on land or sea had been reached, and for the first time in three centuries England yielded to another nation the honours of the Farthest North. The end of Greenland, so many times seen or supposed to have been, was extended at least forty miles northward, and over a hundred miles of new shore, never before trodden by the foot of man, added to its coast-line. To the westward the Polar Ocean had been reached by the crossing of Grinnell Land, while the interior of that country had been surveyed, its extraordinary physical geography determined, and the outlines of its north-western coast fixed with tolerable certainty.'

A really admirable record, it must be granted, and one of which Greely and the men with him had every reason to feel proud. Unfortunately, the majority of them did not long enjoy the honours they had so hardly won; for although dark days had already befallen them, darker far lay ahead, and into the sunlight on the other side only a few were privileged to pass, leaving their companions to sleep their long, long sleep far from the homes they had struggled so hard to reach.

The 8th of August found the explorers at Fort Conger ready for departure, the relief-ship not having arrived; but a gale prevented the start of the retreat till the following day. Then the party, consisting of twenty-five men in all, abandoning the station where for two years they had lived and worked together, turned their faces southwards, hoping that they might fall in with a ship or reach Littleton Island, on which a depot had been established. The dogs could be of no use in the retreat, and therefore they were left behind with a quantity of food to keep them from starving. Cape Baird, at the mouth of Lady Franklin Sound, was reached after one day's journey, and there a cairn was erected, and in it deposited information with regard to the expedition and its movements.

Stores having been taken on board, the journey was resumed, the steam-launch having in tow the other three boats. They were provided with forty days' full rations, while supplies for an additional twenty days were cached to the southwards between Capes Baird and Collinson.

It was not long before the ice, fickle and treacherous as ever, had the retreating band completely at its mercy, blocking the passage that led to safety and retarding progress when every hour was of vital importance, while the frequent fogs and snowstorms soaked the travellers to the skin, and in their shivering misery they crouched in their open boats, enduring with heroic fortitude the daily tortures of the Arctic winter. It is not necessary to enter into the details of those terrible days and nights during which Greely and his comrades suffered and struggled together, battling for their lives against a succession of circumstances any one of which might easily have ended in death for all. The soldier's end, when it comes in the heat of the strife, is invariably sudden and painless; but here was a company of men, after two winters of residence amid the dangers of the frozen wilderness, weakened by their long exposure, fighting day by day the terrors of that awful

land of snow and ice, pushing on in the face of terrific obstacles, and suffering all the while agonies of mind and body that no pen, no matter how gifted with the magic of genius, can ever hope to describe.

And yet, in spite of their daily trials, the men remained in remarkably good spirits, occasionally indulging in dancing and singing on the ice 'as merrily,' as one of themselves put on record, 'as they would have done in their own homes.' But gradually the outlook became darker. The cold weather was setting in earlier than usual; the new ice was already forming, and although the commander was keeping his thoughts to himself, he had come to the conclusion that there would be no more open water that year. To facilitate their progress over the ice, the steam-launch was eventually left behind on the floe, and with sledges heavily laden the brave explorers continued their journey, still meeting with dangers and difficulties, and narrowly escaping a drift into Baffin Bay and destruction. On 29th September, the party at last reached the shore, landing at Eskimo Point after a retreat, the story of which, according to Greely himself, can never be fully told. 'The retreat from Fort Conger to Cape Sabine,' he adds, 'in-

volved over 400 miles of travel by boat, the greater part of which was made in circumstances of such great peril or imminence of danger as to test to the utmost the courage, coolness, and endurance of any party, and the capacity of any commander. As to my officers and men, it is scant justice to say that they faced resolutely every danger, endured cheerfully every hardship, and were fully equal to every emergency (and they were many) of our eventful retreat.'

Preparing to camp at Eskimo Point for the winter, Greely estimated that there were rations to last for thirty-five days, and from caches at Cape Sabine and other places in the neighbourhood he hoped to add materially to the supplies. Sergeant Rice was despatched to Cape Sabine, and returning on 9th October brought both good and bad news. He reported that at or near Sabine there were from ten to twelve thousand pounds of rations at various depots. A record left by Lieutenant Garlington on 24th July, which he found at Sabine, explained to them for the first time the reason for the non-return of the *Proteus*, which, he said, on the afternoon of the 23rd of the month was nipped in the ice between Sabine and Cape Albert while attempting to reach Lady

Franklin Bay. 'She stood the enormous pressure nobly for a time,' wrote the lieutenant, 'but had to finally succumb to the measureless force. The time from her being beset to going down was so short that few provisions were saved.' After giving particulars of the rations cached, the letter added: 'All saved from the *Proteus*. The U.S. steamer *Yantic* is on her way to Littleton Island with orders not to enter the ice. A Swedish steamer will try to reach Cape York during this month. I will endeavour to communicate with these vessels at once, and everything within the power of man will be done to rescue the brave men at Fort Conger from their perilous position.'

On the receipt of this communication, Greely determined to leave their winter-quarters at Eskimo Point and push on to Cape Sabine, and await there the promised help, which he did not doubt, from the terms of Garlington's letter, was already on its way. His journal shows that he looked forward to privation, to partial starvation, and even to possible death for a few of the weakest; but he expected no such thing as an abandonment to their fate. They had at this time four boats, Greely says, and although the sun was about to leave them for the winter they could

yet travel southwards, there being open water visible at Cape Isabella. 'Had I been bluntly told,' he adds with just a touch of bitterness in his words, 'that we must depend upon ourselves, that trouble and lack of discipline prevailed among the *Proteus* crew, that the *Yantic* was a fair-weather ship, and that its commander and Lieutenant Garlington were acting independently of each other, I should certainly have turned my back to Cape Sabine starvation to face a possible death on the perilous voyage along shore to the southward.'

Transferring their camp to the neighbourhood of Cape Sabine on 12th October, the party soon built houses and settled down in them in good spirits and in expectation of a speedy release. But before the long-delayed relief found its way to this frozen region, nearly all the party had passed beyond the reach of help. The story of that winter at Cape Sabine is one of the most terrible in Arctic records. From Greely's own pen we have a wonderfully graphic picture of the agonies prolonged from day to day—agonies of cold and starvation endured till the minds of some gave way under the strain; others, in desperation, resorted to the theft of the limited rations, till one

man was at last shot for this offence many times repeated. Nearly all became irritable and quarrelsome; and then, at last, when they could stand the suffering no longer, man after man lay down never to rise again, finding it easier to die than to linger on in a living death. It is a gruesome story, but relieving it are acts of noble heroism that deserve to be written in letters of gold. They were brave men all of them, and it is easy to agree with their leader when he pathetically says that they deserved a better fate.

From the very beginning of the stay at Camp Clay, as the place was named, the food was served out carefully, for it was necessary to take every precaution, and to so apportion the supplies that they would last till the spring, and as some of the stores found in the depots had been so damaged by wet as to be unfit for use, it was obvious that the rations must be calculated to the last ounce. With the view of adding a little to the daily rations—something like an ounce a day to each man, it was hoped—Greely determined to send a small party to Cape Isabella, forty miles to the southward, where Nares in 1875 had cached about 140 pounds of beef. Rice, Frederick, Elison, and Lynn volunteered for the task, and reached their destination after

four days' hard travelling. Ascending to a height, they gazed southward as far as the eye could reach; the brilliant light of the moon revealed to their astonished eyes a vast stretch of open water, the white-capped waves dancing temptingly in the moonlight, and rolling in to the cape itself. There, before them, lay the path to safety and home, and had the whole party been able to follow it, there is little doubt that the tragedy, the dark shadow of which was already hovering over them, would never have fallen.

Taking up the meat, the four men turned their faces towards Camp Clay, tramping across the rough ice at a reduced pace because of their own feebleness and the additional burden on their sledge. By the time they reached the place at which they had last camped on their outward journey, Elison was suffering terribly from the cold, both hands and feet being badly frost-bitten. Each of them taking a hand, Frederick and Rice tried to impart some of their warmth to the frozen limbs of their companion; but there was little alleviation of the pain, and in his agony the poor fellow lay crying all night. When the march was resumed in the morning, Elison was little better, and Frederick, supporting him as he walked, had almost to carry

him along. All day long they pushed slowly ahead. Matters reached a crisis the following morning. Utterly helpless, Elison required more than ever the assistance of his comrades, and as it was quite impossible to bring him to a place of safety and carry the meat at the same time, it was resolved to abandon the latter, obtained at the cost of so much suffering and labour; and leaving it, with a rifle stuck in the ice to mark the spot, they trudged along with all available speed, reaching the old headquarters at Eskimo Point after a ten hours' march.

By this time Elison was in a pitiable condition. Not only had his clothing become 'a perfect sheet of ice,' but the frost had gone deeper into his hands and feet, and when a little heat had been obtained, and his frozen limbs began to thaw, he suffered excruciating agony. The next day they were again on the road, Elison stumbling and falling in his attempt to walk behind the sledge, to which he had been tied, and sometimes being dragged several feet before his companions observed his collapse. At last they came to a halt at the hill between Baird Inlet and Rosse Bay. Elison could no longer stand, and his weakened companions were quite unfit to haul him up the

incline. Something had to be done without delay, and Rice boldly set out for Camp Clay to bring help, while the other three crept into their sleeping-bag, exposed as they were to the full fury of a biting gale, to await his return.

Eating a little frozen beef by the way to maintain his strength, Rice manfully faced the trying and dangerous road that led to the camp, fifteen weary miles away. Never for a moment did he hesitate in his purpose. Across Rice Strait he travelled in the darkness, the young ice cracking and bending beneath his feet as he passed. At midnight Greely was awakened by the sound of staggering footsteps, and sprang up to hear from the frozen lips of the exhausted traveller that Elison was dying in Rosse Bay. The story was soon told, and without loss of time Brainard and Christiansen, carrying food and brandy to relieve the immediate needs of the three men lying far out on the ice, were hastening over the frozen track, being followed two hours later by Lieutenant Lockwood, Dr Pavy, and four of the strongest men with the large sledge.

Meanwhile, things were going badly with the men out in the cold wastes. Elison groaning with cold and hunger, and Lynn, though a powerful

man, so affected by Elison's sufferings as to be quite helpless, were sorry companions for Frederick, and a miserable time was spent. The sleeping-bag froze solid in a few hours. Unable to move, the three helpless men lay in one position for eighteen hours, and when the relief arrived, they had to be cut out of their place of retreat. Camp was reached without further mishap, and though Elison's life was despaired of, he made a wonderfully good recovery, in spite of the fact that his feet and the greater part of his hands had to be amputated. It is worth noting that this journey of Lieutenant Lockwood is, in the opinion of Greely, the most remarkable in the history of Arctic sledging. 'The half-starved, enfeebled party of eight men made a journey of nearly forty miles in forty-four hours. They travelled in darkness over rough and heavy ice without disaster. They had been on reduced rations for over two months, and although unfit for the most of ordinary service, ventured their lives most cheerfully on the merest possibility of rescuing a comrade whom they expected to find dead.'

Existing on a daily ration which the doctor declared to be insufficient to support life, Greely and his men passed a miserable winter. To lift,

if possible, the thoughts of the party from their sufferings, Greely lectured each day upon the physical geography and resources of the United States, bravely persisting in this task of love even though the effort was too much for him in his exhausted condition. By the end of December they were all more or less sullen and unhappy; but Christmas Day produced a better atmosphere, and for a little while they were able to fling off their load of care. The New Year (1884) opened without any change in the circumstances. On 18th January death visited the camp for the first time, Cross succumbing to a severe attack of scurvy. On 2nd February, Rice and Jens left for Littleton Island in the hope of finding a depot with supplies. Most of the party believed that Lieutenant Garlington was there with ample stores from the *Yantic*; but Greely was not so optimistic, as he did not believe that Garlington had landed on the island on his way north. In the event of Littleton Island yielding no assistance, Rice was expected to continue his journey and bring help from the Etah Eskimos, who had shown much kindness, as we have seen in an earlier chapter, to Kane and Hayes when these explorers were sore beset. After an absence of four days, Rice

and Jens returned, the former reporting that he found open water, extending from ten miles off Wade Point and a mile off Brevoort Island as far into Kane Sea as the eye could reach. At no time was the Greenland shore visible.

To Greely, in particular, this failure to reach Littleton Island was intensely disappointing, though the bulk of the party did not seem to realise the full gravity of the situation. But to Lieutenant Lockwood it appeared to mark the beginning of the end. For months he had steadily looked death in the face without a tremor; now the pace of the great enemy seemed to be quickening, and with courage he awaited its coming. 'If our fate is the worst,' he wrote, 'I do not think we shall disgrace the name of Americans and of soldiers.'

There was just a possibility, Greely announced, though he scarcely believed it himself, that Smith Sound would freeze over by 1st March, and give them a chance to escape; but that date came and went, and still they were unable to leave their camp. 'The fates seem to be against us,' Greely wrote on the 13th, despondency for the time being completely overmastering him; 'an open channel, no game, no food, no hopes from Littleton Island. We have been lured here to our destruction. If we were

now the strong, active men of last autumn, we would cross Smith Sound, where there is much open water; but we are a party of twenty-four starved men, of whom two cannot walk, and a half-dozen cannot haul a pound. We have done all we can to help ourselves, and shall ever struggle on; but it drives me almost insane to face the future. It is not the end that affrights any one, but the road to be travelled to reach that goal. To die is easy, very easy; it is only hard to strive, to endure, to live.' 'It is surprising,' he wrote a little later, 'with what calmness we face death, which, strongly as we may hope, seems now inevitable. Only game can save us. We have talked over the matter very calmly and quietly, and I have always exhorted the men to die as men, and not as dogs.'

The month of April was not far advanced before it became obvious that the end was in sight. Very little game could be found, and although small quantities of shrimps were obtained and mixed with the stews, the few ounces of food doled out each day did practically nothing to stem the awful ravages of hunger. No wonder that the conversation so often turned upon the pleasures of the table, or that the one thought day and night was

of food, food, food. On 5th April, the Eskimo, Christiansen, died from 'the action of water on the heart, induced by insufficient nutrition,' the doctor said, which, in other words, meant starvation. The next day, another of the party, Lynn, succumbed. They must all go the same way unless something happened to relieve the critical situation, and, as a last desperate chance, Rice and Frederick started out for Baird Inlet with the view of recovering the English beef deposited there in the preceding November, when, it will be remembered, it was left behind owing to the physical breakdown of Sergeant Elison, for whose sake a forced march to Cape Sabine became necessary.

Realising the dangerous nature of this undertaking, Greely had refused his consent when it was suggested by Rice and Frederick; but now he withdrew his opposition in consequence of the warning conveyed in the two deaths just recorded, and the two men left on their quest at midnight of 6th April, their comrades sending after them a feeble cheer to encourage them on their way. It was not an easy task which the heroic fellows had undertaken; but they knew the risks and were prepared to face them. They were frequently in danger owing to the deep snow, falling into the

drifts, and escaping from them only after considerable difficulty. The wind swelled into a gale, driving the snow into their faces, and making it impossible to light a lamp when they encamped on the evening of the 7th. Without tea or drink of any kind, they were compelled to take to their sleeping-bag, eating only a few ounces of frozen pemmican as they lay down on the ice to rest. Soon the drifting snow covered them with a mantle of white, and the storm continuing, they were unable to leave their bag for twenty-two hours.

Reaching Eskimo Point, they dropped the sleeping-bag and some of the rations, and with lightened sledge pushed on to the place where the meat had been abandoned, that spot being now only six miles distant. Again they found themselves at the mercy of the elements in their sternest moods. A gale sprang up suddenly, and the heavy snow attacking them, with the violence of the wind behind it, not only chilled their bodies, but obscured their vision, so that they stumbled on without seeing what lay ahead. Yet they manfully persevered till they reached their goal. They searched long and earnestly for the meat upon which so much might depend, but could not find it, and staggering under



Sitting in his shirt-sleeves, he held his friend in his arms.

H. P. S.

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this latest blow they turned sadly away from the scene of their disappointment.

They had not gone very far before Rice showed symptoms of collapse. Preparing some warm food and drink, Frederick gave it to his companion, and then tried to persuade him to continue the march to avoid freezing where he sat. But all his appeals were in vain. Tired human nature had at last rebelled. Rice could not stand up, and lay back on the sledge to await the end, which appeared to be very near. With infinite devotion and tenderness, Frederick ministered to the needs of his dying comrade. Removing some of his own clothing, in spite of the storm of wind and snow, he rolled the garments round the suffering man, and sitting on the sledge in his shirt sleeves he held his friend in his arms till his eyes closed in the long sleep of death.

Alone on that vast ice-field, chilled with cold and weak with strain and hunger, it seemed as if Frederick, too, must lie down in the dazzling snow, and follow his comrade into that sleep which knows no waking. He was too weary to care what happened, and he felt that it would be easier to die than to struggle on in wretchedness and despair. But suddenly there came into his mind the thought of the men at Cape Sabine eagerly awaiting his return,

and rousing himself into action he made his lonely way to Eskimo Point, and wearily crept into his sleeping-bag. Strengthened somewhat by the rest and a little food, he returned next morning to the scene of death, and after burying his dead comrade in the snow, began his long march back to camp, dragging the sledge after him. This story of heroism would be incomplete without the addition of one other tremendously significant detail. On reaching headquarters, Frederick 'turned in Rice's rations, having done his work on the food allotted.' Throughout this terrible expedition Frederick is conspicuous again and again for his courage and loyalty; but I know of nothing that so reveals the true greatness of the man as his stern refusal, in the face of his great need and danger, to touch one morsel of food that had been apportioned to his companion on the fatal journey, but brings it back so that, small as it is, it may help to swell the scanty supply on which hang the lives of all.

Death was busy in the camp during Frederick's absence. Lieutenant Lockwood and others had passed away, and as the days and the weeks went by the death-roll steadily increased. Lieutenant Kislingbury and Dr Pavy died at the beginning of June; the brave little Eskimo, Jens, was drowned

while hunting; one man, Henry, was condemned to be shot for repeated thefts from the stores. Greely for a time suffered so severely from an affection of the heart that he believed his end to be near, and prepared himself for it. 'Our condition grows more horrible every day,' he wrote about this time. 'No man knows when death is coming, and each has long since faced it unmoved. Each man who has died has passed into the preliminary stages of mental, but never violent, wandering, without a suspicion that death has marked him.'

The month of June was now approaching its end. By this time most of the men composing the expedition had passed into the Great Beyond; the few who were left hovering on the brink of the grave were trying to keep in the feeble flicker of life by eating sealskin thongs and *tripe de roche*. It seemed as if every one was doomed; that the story of the ill-fated Franklin expedition would be repeated, and that not one man would be left to tell the awful tale of the long days of misery and starvation. All hope, the last thing to desert man, was abandoned, and the starving remnant waited calmly for death's summons.

But succour was at hand. Near midnight of the 22nd, a sound like that of a steamer's whistle

reached Greely's listening ears, and though he could hardly believe that any ship would venture along the coast in such a gale as was then blowing, he asked Brainard and Long to step outside and see whether anything was in sight. Their mission was fruitless; the momentary spark of hope was extinguished, and again the gloom of despair had settled down, when suddenly strange voices were heard outside, and the seven survivors knew that at last for them the bitterness of death had passed and that the hour of their deliverance had dawned.

The expedition, under Captain W. S. Schley, commanding the *Bear* and the *Thetis*, despatched in search of Greely had found him, and the men who were still in the furnace of affliction were snatched from the brink of the grave and nursed back to health and strength, with the exception of Elison, who died soon afterwards in consequence of a second amputation.

It is a sad, sad story this of the Lady Franklin Bay Expedition, and no one can read it without coming to the conclusion that some one had blundered, and that the prodigal waste of human life might have been avoided. Long and bitter was the controversy in the United States regarding the responsibility for the great disaster. Greely main-

tained that after the foundering of the *Proteus*, it was the duty of Lieutenant Garlington to replenish the cached stores, which he knew to be damaged. And with the never-to-be-forgotten experiences at Cape Sabine fresh in his memory, he sits in judgment on those who might have done something to avert the catastrophe. The action of Garlington, he adds, 'in taking every ounce of food he could carry when turning southward cannot be justified, nor his retaining and feeding a large dog in these circumstances. He acknowledged the dangerous situation in which we were situated; promised all assistance in the power of man; tied us down to Sabine, and, as events have proved, never even asked a national ship to turn her prow northward to our relief or rescue. Within thirty miles of twenty days' rations for his party, and a hundred miles from six months' supplies, which it was obvious could not be reached by me later in the season, he loaded his boats to the danger-line, even carrying food in tow, to insure the safety of his men. Others may justify this extreme prudence for his own party, but I can hardly be expected to.'

Nor does the action of the commander of the *Yantic* escape without Greely's severe comment. His precipitate retreat southward, in the opinion of

Greely, has never been satisfactorily explained. 'He knew that twenty-five of his countrymen counted on aid and relief that year, but his orders did not require him to assist them; so no misgivings as to their fate disturbed him, and his ship went southward, still freighted with abundant and undiminished stores. The *Proteus* disaster, and the subsequent failure of Commander Wildes to extend relief, did not alone determine the fate of the party. . . . Had a stout sealer—and there were many available—left St John, under a competent officer, within ten days after the return of the *Yantic*, the entire Lady Franklin Bay Expedition, in my opinion, would have safely returned.'

What might have been! 'For of all sad words of tongue or pen, the saddest are these, "It might have been."' But the might-have-been gave place to the actual, and the tragedy of Cape Sabine passed into the blood-red pages of Arctic history.

CHAPTER XI.

TWO GREAT DISCOVERIES—FRANZ JOSEF LAND AND THE NORTH-EAST PASSAGE.

IF the numerous expeditions which ventured into the Arctic seas failed to overcome the barrier of ice which, like a giant sentinel, guarded the hidden precincts of the Pole, they were not by any means barren of achievement. The main object which lured the daring navigators into the frozen regions remained unfulfilled; but the fruits of exploration, nevertheless, were fairly bountiful, and were well worth the struggle which they cost. Little by little, the minor secrets—if so I may be permitted to designate them—of the Arctic Circle were dragged into the daylight, each fresh expedition adding something to the increasing record of discovery. Thus the great frozen land of desolate wastes was gradually unfolding itself in tribute to the resistless energy of persevering man, and our knowledge of it grew from more to more in ratio with the steady persistence of exploring enterprise.

But while well-planned investigation yielded magnificent results, not a little was due to fortuitous

circumstances. In 1873, the vast archipelago known as Franz Josef Land was accidentally discovered by the Austro-Hungarian Expedition, under the leadership of Payer and Weyprecht. On a voyage, in 1872, to discover the North-east Passage, their ship, the *Tegetthoff*, was gripped in the ice in her endeavour to pass round the north end of Novaya Zemlya, and remained fast in her prison in spite of all efforts to release her. For a year the *Tegetthoff* was unable to escape, and drifted with the pack, the crew experiencing what Payer described as 'that dreadful triumvirate—darkness, cold, and solitude.' Often it seemed as if the ship must be crushed to powder, the ice pressing around her on every side till her timbers groaned and cracked. On such occasions the men would be summoned on deck to be ready for any emergency. 'Ever nearer came the rushing, rattling sounds, as if a thousand heavy wagons were driving over a plain. Close under us the ice begins to tremble, to moan, to wail in every key, and as the fury of the conflict increases the crumbling becomes deeper and deeper; concentric fissures open themselves round the ship, and the shattered portions of the floes are rolled up into heaps.'

On 30th August 1873, occurred the discovery which made the voyage memorable, the manner of

it reading like a fairy romance. One day had been so like another during the past year that the monotony of life in the icy prison had affected the spirits of all; but in an instant the whole scene was changed. Shrouded in mist, through which the rays of the sun occasionally succeeded in penetrating, the *Tegetthoff* slowly glided with the moving mass. Then the fog suddenly vanished, and there to the astonished gaze of those on deck stood revealed, far off in the north-west, 'the outlines of bold rocks, which in a few minutes seemed to grow into a radiant Alpine land.' For a moment the enraptured onlookers stood transfixed, and then they burst into shouts of joy—'Land, land, land at last!' After all, the expedition was not a failure, for 'there before us lay the prize that could not be snatched from us.' This land that for thousands of years 'had lain buried from the knowledge of man,' was added to the geography of the world by this small band of ice-bound explorers, and, naming it Franz Josef Land, they enthusiastically drank to the health of their emperor, forgetting in their joy all the cares and fears that had so long oppressed them.

Though two visits were made to this new Arctic territory in the early days of November, it was not till the following spring that explorations could be

conducted. Sledge journeys commenced on 10th March 1874, and terminated on 3rd May, 450 miles being surveyed in that time. As the *Tegetthoff* remained firm in the ice, it was at last resolved to abandon her and return to Europe in sledges and boats, and so, on 20th May, the officers and crew turned their backs on the vessel that had been their home for two years, and ventured forth into the cruel and desolate wilderness that would bring them either death or liberty.

It was a hard, hard struggle to which they committed themselves. Many times it seemed as if they would never reach the great world beyond with the news of their wonderful discovery. Travelling was so difficult that the least progress filled the weary men with joy and thankfulness. Around them the ice lay closely packed, and often they had to wait for a week in their boats on a floe till the mass separated sufficiently to give them a passage through. All the time the food was diminishing, and as the days went by the outlook became darker and darker. The difficulties must have been incredible, for 'after the lapse of two months of indescribable efforts,' Payer tells us, 'the distance between us and the ship was not much more than a couple of miles! The heights of Wilczek Island were dis-

tinctly visible, and its lines of rocks shone with mocking brilliance in the ever-growing daylight. All things seemed to say that, after a long struggle with the supremacy of the ice, there remained for us but a distracting return to the ship and a third winter there, stript of every hope, and the frozen ocean for our grave.'

Fortunately, however, this gloomy prediction was not fulfilled. Another month of alternate rowing and sledging took them beyond the great barrier, and, falling in with a couple of Russian schooners, the explorers, after ninety-six days in the open air since abandoning their ship, were free from danger and were able to return home and tell the marvellous story of their great discovery.

These explorations begun by Payer and Weyprecht, were continued a few years later by B. Leigh Smith, whose visit to the archipelago disproved the theory that its shores were unapproachable by ship. In 1880, he discovered much new territory in Franz Josef Land, and in June of the following year, he sailed from Peterhead in a ship built for himself at that port—the *Eira*, a steamer of 350 tons, constructed of extremely hard wood, and in her design, build, and equipment specially adapted for ice navigation and Arctic conditions. Twice caught between

heavy floes on her way north, the *Eira* reached Franz Josef Land on 23rd July. After building a house, the explorers left Eira Harbour on 15th August, and steaming round to Cape Flora made the ship fast to a land-floe, about two miles from the shore. The party intended to work to the eastward, but the state of the ice prevented any such movement, and after several days the row of bergs which had acted as a protecting wall between the pack and the ship was splintered into fragments, and the full pressure of the solid mass came bearing down on the unfortunate steamer.

Caught in a huge mass, the *Eira* was utterly helpless, and as she lay several feet out of the water vain attempts were made to blast the heavy pieces of ice round the stern-post. Unable to resist the terrific pressure, the *Eira* sprang a leak, the water rushing in faster than the pumps could drive it out. It was already obvious that even at this early stage of the enterprise the vessel was doomed, and the only thing to be done was to unload the provisions and other necessities, and to lower the boats as speedily as possible. The work was carried out with feverish energy, for every moment was precious; but while it was yet in progress the signal was given to abandon the ship—a command that

was reluctantly obeyed, as nearly all the provisions remained in the hold. But the vessel, only held up by the pressure of the ice around her, was full of water, and it was a safer policy to sacrifice the provisions than to risk going down to death in the icy waters.

The end was not long in coming. A sudden movement in the ice enabled the *Eira* to right herself for a moment, and then she disappeared quietly into the depths, leaving her party of twenty-five men homeless on the ice with provisions for only eight weeks, and the absolute certainty staring them in the face that a year must elapse before they could either make their escape or be rescued. It was a gloomy outlook, and no wonder the hearts of all were heavy with a great dread as they stood amid the seas and mountains of ice, for they knew not what privation and suffering the immediate future might have awaiting them.

Making their way to shore with what provisions they had been able to save, the shipwrecked men built a stone hut, and during the month of September were fortunate enough to kill bears and walrus, and thus they had sufficient to eat, though the unvaried diet quickly became monotonous. The sun took its departure on 21st October, and without light, with

the temperature sometimes seventy and even eighty degrees below freezing - point, with diminishing rations, the days crept past with leaden feet, while the discouraged men, without sufficient protection against the cold, had frequently to lie in bed for days at a time lest they should be frozen to death. In their wretched hut they waited in misery for the coming spring, in the hope that they might then be able to take to their boats and make a bold bid for liberty. With the coming of the month of May the preparations were commenced, the party being divided into four crews, each fitting out its own boat. The beginning of June found them still waiting for the hummocky ice, that separated them from the nearest water, to break up, and as all the food that remained consisted of twelve legs of bear, it was obvious that the departure could not be made too soon.

At last a terrific gale from the north-west cracked the ice and opened a passage for the boats, and after leaving in the hut a record of their experiences, fixed in an old meat-tin, the long-looked-for start was made, the four boats sailing away from Franz Josef Land at ten o'clock at night on 21st June, and steering a course due south. At first excellent progress was made. With their sails, manufactured

out of white damask table-cloths, the four boats moved briskly along, covering sixty miles in twelve hours; but getting into the pack and beset by fog and snowstorms, the explorers were compelled to drag their boats on to the ice. For eight days they remained on the floe, condemned to compulsory inactivity. Then once more in their boats they resumed their trying journey southwards, experiencing the torments of the fickle ice, which threatened destruction at one moment by locking them in its dreadful embrace, and the next, as if some magic wand had changed the scene, opened a channel through which they might pass in comparative safety. There were moments when despair froze every heart, and when it seemed, as if no power on earth could save them from a terrible fate. Wind, rain, snow, and fog combined to add to the miseries of the struggle, which were but little relaxed when the ice-pack was at length left behind and the open sea reached.

But out of all their trials the brave band emerged triumphantly, and without the loss of a single man. Forty-four days after leaving their winter prison they reached Novaya Zemlya, and there, falling in with vessels that had been despatched to look for them, their troubles came to a fortunate end.

Further explorations in Franz Josef Land were

conducted by the Jackson-Harmsworth Expedition in 1894-97. Under the command of a young Englishman, Frederick G. Jackson, the explorers sailed from the Thames in July 1894, with the object of making a thorough scientific exploration of the land, about which very little was yet known. Only some parts of its southern shores had up till that time been explored, and it seemed reasonable to expect that the archipelago, should it be found to stretch far to the northward, would afford an excellent base from which to extend operations to the Pole. The hope of reaching the Pole, however, had to be abandoned at a very early stage, the land being found to consist of innumerable small islands without any continuous and extensive mass of land, and therefore the energies of Jackson and his scientific staff were concentrated on a thorough examination of the group, with the result that the expedition's contributions to scientific knowledge were of the most valuable character.

Establishing his winter-quarters, on 8th September, at Cape Flora on Northbrook Island, Jackson there built a hut, to which he gave the name of Elmwood. There the provisions were stored, and there the party, far remote from civilisation, voluntarily passed three consecutive winters. During the first winter the

exploring vessel, the *Windward*, remained ice-bound in the immediate vicinity, and for three succeeding summers visited the station with supplies and reinforcements. Thus though the members of the expedition had opportunities to return, they elected to remain till they had accomplished their task, spending a thousand consecutive nights in the Arctic regions—a new record in Polar research.

On the ice, near Elmwood, on 17th June 1896, occurred a dramatic meeting between Jackson and Nansen, the latter, accompanied by his companion, Lieutenant F. H. Johansen, having spent the preceding winter in the north of Franz Josef Land. The meeting, as was natural upon that dreary wilderness of ice, was of the most cordial nature. ‘Aren’t you Nansen?’ asked Jackson, after the two men had warmly greeted each other. ‘Yes, I am.’ ‘By jove, I am glad to see you!’ ‘And he seized my hand,’ says Nansen in his description of the meeting, ‘and shook it again, while his whole face became one smile of welcome, and delight at the unexpected meeting beamed from his dark eyes.’ Nansen was delighted with the reception given to him and his comrade. They could not have fallen into better hands, he afterwards said, meeting with ‘unequalled hospitality and kindness’ on all sides. Both

travellers remained at Elmwood till the arrival of the *Windward* on 26th July, and sailing on board that vessel were landed safely in Norway.

The time spent at Cape Flora passed very pleasantly, and without any of the hardships endured by so many of the earlier expeditions. Steadily the work of exploration was carried on, relieved now and then by encounters with bears. In one of these chases Jackson narrowly escaped with his life. 'I came across a bear close to the open water, with the dogs yelping around him and he roaring and making dashes at them,' he has written in describing the incident. 'Going up to within ten yards of him, I wounded him badly in the lower portion of the neck, but unfortunately not sufficiently to stop him. He reluctantly took to the water; but as it had a thickness of an inch of bay ice upon it, and was consequently difficult to swim through, on my hiding behind a hummock of ice, he came out again farther west and started across the floe at a good pace. The dogs and I followed; he was bleeding considerably all the way. Every now and then he would stop to rush at one or other of the dogs, which, however, managed to dodge him. As he appeared to be distancing me, and I was getting blown from running, I fired a shot at about

sixty yards' distance. Whether it hit him or not I cannot say, but it had the effect of making him head back again towards the open water. As I started out in haste with only three cartridges, I had now only one left, so that on coming up with him again at the edge of the floe I was particularly anxious to make sure of a fatal shot. I found him about thirty yards from the water, which was covered with very thin ice. Wishing to make certain of him, I went up to within six or seven yards of him when he rushed at me, at first with his head low, at which I fired; but just as I did so, he threw his head up, causing the bullet to go between his forelegs. He came at me with a regulation, menagerie roar and his mouth wide open, and in a second he was upon me. I could feel his warm breath upon my face; could see the gleam of his teeth and the shape of his long, gray tongue, and the fierce glare in his savage eyes. I had just time to remove the rifle from my shoulder, half-dazzled as I was by its flash in the darkness, and to thrust the barrel with all my force into its open jaws, and then draw it back for another thrust. It was a trifle too much for him, apparently, as he whipped round and took to the water, with thin ice as it was. My left hand had entered his mouth up to the wrist, as

shown by the teeth-marks upon it. I had now to reluctantly throw up the chase for the present, and started back to the hut for more cartridges, although I would have given ten pounds for another cartridge then, for I could have killed him easily.'

Another notable accomplishment which may be included in this chapter is that of the Swedish explorer, Nils Adolf Erik Nordenskiöld, who, on a voyage into the Arctic seas, beginning in 1878, discovered the North-east Passage. In our opening chapter we saw how the navigators of earlier centuries, from the sixteenth onward, had sought long and eagerly for some route that would connect Europe with India and China by way of the Polar Sea; but their efforts, bold and daring as they were, ended in disappointment, and sometimes in disaster. Nordenskiöld succeeded where they failed; succeeded, too, without meeting with any serious difficulty, and without undergoing any of the hardships which are more or less the fate of all who venture into the Frozen North.

In 1875 and 1876, Nordenskiöld, who had behind him a notable record as an Arctic explorer, took part in two expeditions from Sweden to the western part of the Siberian Polar Sea; and after his return

from the latter voyage, he expressed his belief that the open, navigable water, which for two years in succession had carried him across the Kara Sea to the mouth of the Yenisei, extended, in all probability, as far as Bering Strait, and that a circumnavigation of the Old World was thus within the bounds of possibility.

Laying his plans before the King of Sweden, Nordenskiöld was fortunate enough to win the royal approval, and, backed by his sovereign and by leading men of science, the enterprise was soon arranged. The steamer *Vega* was purchased for the voyage, and sailed in July 1878. On 19th August the vessel rounded Cape Chelyuskin, the most northerly point of the Old World, and in pushing farther on found the ice rather troublesome. These difficulties gradually increased until, on 27th September, the *Vega* anchored on a grounded floe-berg in Kolintchin Bay, near to Bering Strait. It was thought that the stay would be only temporary; but it soon became evident that no release from the ice could be expected that autumn, and, accordingly, the explorers settled down to pass the winter in a region far from hospitable.

There the expedition was detained till July of the following year. There was even then little indication

of release; but during dinner on the 18th of that month, it was suddenly observed that the *Vega* was moving slowly, and one of the men rushing on deck brought back the joyful tidings that the ice was in motion. Two hours later the ship was under steam. Pursuing her way towards Bering Strait, the *Vega* passed Cape Serdze Kamen on the 19th, and on the following day they were in the middle of the sound which unites the North Polar Sea with the Pacific, from which point they greeted the Old and New Worlds with a salute of victory.

‘Thus finally,’ says Nordenskiöld, in relating his great achievement, ‘we reached the goal towards which so many nations had struggled all along, from the time when Sir Hugh Willoughby, with the firing of salutes from cannon and with hurrahs from the festive-clad seamen, in the presence of an innumerable crowd of jubilant men certain of success, ushered in the long series of north-east voyages. Now, for the first time after the lapse of 336 years, and when most men experienced in sea-matters had declared the undertaking impossible, was the North-east Passage at last achieved. This has taken place, thanks to the discipline, zeal, and ability of our man-of-war’s-men and their officers, without the sacrifice of a single human life, without sickness among those

who took part in the undertaking, and without the slightest damage to the vessel.'

A great achievement, certainly, and one of which Nordenskiöld and his men, as well as the country under whose flag they sailed, had every reason to feel proud.

And thus the secrets of the Arctic, so long hidden within its icy breast, were being yielded up to persevering man.

CHAPTER XII.

NANSEN AT THE 'FARTHEST NORTH.'

STILL undisturbed in its icy fastness, the Pole continued to exert over mankind its fascinating spell. As long as this elusive secret of the ages mockingly defied human courage and endurance, just so long would that spirit which never acknowledges defeat impel men to go in search of the Holy Grail beckoning them in the Frozen North. The goal of centuries was coming nearer; but it was still a long way off, and there could be no resting-place till the foot of man trod the apex of the Northern Hemisphere.

In 1893, the Norwegian explorer, Dr Fridtjof Nansen, started off on the quest which had lured so many ambitious travellers. Never before, perhaps, in all the long history of Arctic enterprise, had explorer set out so admirably equipped. For nine years previous to his departure—beginning when he was twenty-three years old—Nansen had been considering his plans, and every detail was calculated to a mathematical nicety. Nothing was left to chance. A scientist of considerable attainments, as well as a trained athlete and an expert snow-shoe traveller, he

had carefully considered how to make even the pitiless Arctic conditions serve his purpose. He applied his genius to the solution of difficulties that had barred the progress of his predecessors, and as a result of his laborious and minute preparation he penetrated much farther towards the Pole than any man had ever done before, and returned to civilisation, after an absence of three years, without having to record disaster or serious accident of any kind.

For the great task which he had voluntarily undertaken, Nansen seemed the ideal man, both by nature and by endowments. Born near Christiania, in Norway, educated at its university, trained as a geologist, he was only twenty-one years of age when he took a trip in East Greenland for zoological specimens. In 1888 he made his memorable journey over the Greenland ice-plateau, and living with the Eskimos during that winter, sleeping in their rude huts and becoming accustomed to their manner of living, believing in the theory, as Hall did before him, that an Arctic explorer should be able to live, if need be, as the natives do, depending for everything upon the country he lives in, he laid up a valuable store of experiences, which made a fitting preparation for the work of the coming years. When the time came, he had to live just like the

Eskimos, and to the fact that he was able to do this he probably owed his life.

Carefully weighing every detail before he launched his plan, Nansen was prepared to go in search of the Pole by a route and under conditions which threatened great suffering, and probably disaster. Believing in the theory of a drift from east to west, he boldly announced his intention of putting that theory to the test, declaring that a vessel which got frozen in to the north of Siberia must drift across the Polar Sea, and out into the Atlantic. Undeterred by the fate of the *Jeannette* Expedition, he was confident of success.

Forsaking precedent in another direction, Nansen himself invented the model of the *Fram*, which was regarded as the strangest vessel ever used in Arctic exploration. The hull, round and slippery like an eel, with no corners or edges to give a grip to the ice, was specially designed for ice-pressure, its bold inventor's theory being that, when the ice closed round the ship, she would not be crushed to match-wood, but would be lifted on to the floe, on which her flat bottom would enable her to rest without fear of capsizing. Experts laughed at the idea. Nothing, they declared in scorn, would save the *Fram* from destruction when in the embrace of the frozen masses ;

but their grim predictions went unfulfilled, the *Fram* behaving, when put to the test, just as Nansen said she would do, and resting safely on the ice when there was no longer water in which to float.

The whole scheme in the eyes of those who deserved to be regarded as authorities seemed sheer madness. In November 1892, Nansen laid his plans before the Royal Geographical Society in London, the lecture being attended by the principal Arctic travellers of Britain. The discussion which followed the lecture showed how greatly Nansen was at variance with the generally accepted notions as to the conditions in the interior of the Polar Sea, the principles of ice-navigation, and the methods that a Polar expedition ought to pursue. 'I think I am safe in saying this is the most adventurous programme ever brought under the notice of the Royal Geographical Society.' With these words Sir Leopold McClintock, the eminent Arctic explorer, opened the discussion, and both he and the speakers who followed had little confidence in the practicability of the scheme. In a magazine article, Greely, whose unfortunate expedition into the Arctic seas has been described in an earlier chapter, was severe in his condemnation of the whole undertaking. 'It strikes me as almost incredible,' he wrote, 'that the

plan here advanced by Dr Nansen should receive encouragement or support. It seems to me to be based on fallacious ideas as to the physical conditions within the Polar regions, and to foreshadow, if attempted, barren results, apart from the suffering and death among its members.'

With all this consensus of expert opinion arrayed against him, Nansen sailed from Christiania on board the *Fram* on 24th June 1893, accompanied by twelve of his hardy countrymen. Leaving behind the shores of Norway, they pursued their way northwards, and on 25th July sighted Goose Land on Novaya Zemlya. A thick fog prevailed at the time, and instead of making for land, as intended, the course was set eastwards towards Yugor Strait. Two days later, while still enveloped in fog, the first ice was encountered. There was little of it to begin with; but the following morning, as far as the eye could reach—the fog having lifted temporarily—the ice extended everywhere—a bad lookout for such an early period of the season. Forcing her way through, and already revealing her splendid qualities among the frozen masses, the *Fram* reached Yugor Strait on 29th July, and, after a few days' stay at Khabarova, passed into the dreaded Kara Sea on 4th August. Here it was that Nansen felt their fate would be

decided, for he had always said that if they could get safely across the Kara Sea and past Cape Chelyuskin, the worst would be over. Fortune was with the explorers, the navigation of the Kara Sea being much easier than they had anticipated, and early in September, Cape Chelyuskin, the northernmost point of the Old World, was safely passed. They had thus avoided the danger of a winter's imprisonment on that coast, and before them the way lay clear to their goal, the drift-ice to the north of the New Siberian Islands.

Steaming along the west of these islands, Nansen already found himself puzzled with regard to the movements of the ice. 'How in the world,' we find him asking in his diary, 'is it not swept northwards by the current which, according to my calculations, ought to set north from this coast, and which, indeed, we ourselves have felt. And it is such hard, thick ice—has the appearance of being several years old. Does it come from the eastward, or does it lie and grind round here in the sea between the "north-going" current of the Lena and the Taimur Peninsula? I cannot tell yet; but, anyhow, it is different from the thin, one-year-old ice we have seen until now in the Kara Sea and west of Cape Chelyuskin.' On 22nd September the

Fram's progress was finally blocked, and three days later, when the ice had closed round her and locked her securely within an icy prison, Nansen expressed the opinion that they were now frozen in for good, and he did not expect to get the *Fram* out of the ice till they were on the other side of the Pole, nearing the Atlantic Ocean.

And now began the long, weary imprisonment that was to end they knew not how. Would the *Fram*, if she survived the ice-pressure, drift in the direction which they anticipated, or was there awaiting them a fate which they were afraid even to contemplate? These were questions to which no answer could be given. All they could do was to leave themselves at the mercy of the elements, waiting with what patience and calmness they could command to see what the long Arctic night would bring to them. As the days went by the *Fram* proved a safe and a comfortable home. With a noise like thunder, the ice pressed and backed against her stout sides, piling itself up in great, long walls and threatening destruction to the expedition; but to all the attack the *Fram* offered a stubborn resistance, and the men on board, rejoicing in their security, remained undaunted amid the commotion. Only twice during the prolonged stay

amid the ice did the crew fear the consequences of the pressure, and on one of these occasions the situation became so alarming that sledges and provisions were placed upon a neighbouring floe in preparation for the worst; but their fears were groundless, for, as Nansen afterwards said, 'the *Fram* was stronger than our faith in her.'

While the days on board the *Fram* were passed in comfort, they were not without their monotony; while to the commander of the expedition they were full of anxious thought. The vessel drifted slowly with the ice; but the drift for a time was southwards, and Nansen was naturally much annoyed at this turn of affairs. That was not the direction in which he desired to go. He had not calculated upon moving to the south, and as early as the beginning of November we find him in quite a despondent mood. Sitting 'in the still winter night on the drifting ice-floe,' with only the stars above him, thought chases thought, and he begins to wonder why he has taken that voyage. Then he asks himself, 'Could I do otherwise? Can the river arrest its course and run uphill?' Under his own critical examination, he sorrowfully confesses that his plan has come to nothing; that the palace of theory, which he reared in pride and self-

confidence, high above all silly objections, has fallen like a house of cards at the first breath of wind. 'Build up the most ingenious theories,' he says to himself, 'and you may be sure of one thing—that fact will deny them all. Was I so very sure? Yes, at times; but that was self-deception, intoxication. A secret doubt lurked behind all the reasoning. It seemed as though the longer I defended my theory, the nearer I came to doubting it. But no; there is no getting over the evidence of that Siberian drift-wood.' But he is a philosopher amid it all. What if he is on the wrong track? 'Only disappointed human hopes; nothing more. And even if we perish, what will it matter in the endless cycles of eternity?'

The same conditions continuing, Nansen becomes even more gloomy and depressed. A few months later, about the middle of February, he faces the situation unflinchingly, and being perfectly honest with himself, he mournfully confesses that 'this is a wretched state of matters. We are now about 80° N. lat.; in September we were in 79° ; that is, let us say, one degree for five months. If we go on at this rate, we shall be at the Pole in forty-five, or, say, fifty months, and in ninety or one hundred months, at 80° N. lat., on the other side

of it, with probably some prospect of getting out of the ice and home in a month or two more. At best, if things go on as they are doing now, we shall be home in eight years.' Nansen was fretting at the inactivity, and so were they all; but they could do nothing to relieve the situation. Spring and summer came round, and still they remained ice-bound; autumn gave place to winter, and yet there was no change. Trying as they were, however, these days were not without their compensations; for it was while the *Fram* was slowly drifting with the pack that Nansen made what is regarded as the greatest discovery of the voyage—the existence of a wide, deep sea towards the Pole, having a relatively warm temperature in its depth, a continuation of the Arctic Sea, situated between Greenland on the one hand, and Norway and Spitzbergen on the other,' thus dispelling the popular theory of a shallow Polar Sea. A northerly drift setting in, the *Fram* was gradually carried to lat. $83^{\circ} 59'$ N., long. $102^{\circ} 27'$ E., at which point Nansen left her to continue his way Poleward on foot, after handing the ship over to the command of Captain Sverdrup.

Nansen's companion on this journey northwards, with the Pole as the beckoning goal, was

Lieutenant Johansen, and before their final departure, on 14th March (1895), they had made two starts, on each occasion being compelled to return to the *Fram*. It was a hazardous undertaking to cut themselves off from their base and wander out into the Great Unknown, for they knew not what the forbidding wilderness of ice might have in store for them. There were certainly hardships ahead; there were innumerable difficulties and dangers, and there might even be death. Others had perished on these bleak and desolate wastes, and perhaps the same fate would be theirs. But they were not afraid to take the risks, and with dogs and sledges they set out from the *Fram* on foot, purposing to travel northwards for fifty days, for they had only provisions to last for a hundred days, which was all they could carry over the rugged ice-floes.

For the first week the progress was most satisfactory. The ice was good and travelling was easy. These favourable conditions, however, did not last. Soon the flat track gave way to rough and uneven ice, and over huge obstacles the heavily laden sledges had to be lifted, involving an expenditure of physical energy that tested the travellers to the very utmost. Sometimes they were almost asleep as they wearily dragged the

sledges along, pulling for nine or ten hours each day, often in the face of blinding snowstorms, and with the floes in constant motion, and grinding against each other with a loud and terrifying noise. Great ridges of piled-up ice of dismal aspect hindered the march, while frequent trouble with the dogs added to the difficulties of the journey.

By the beginning of April it was obvious that it was impossible to reach either the Pole or its immediate vicinity over such ice as they were then encountering, and the two travellers were seriously considering the advisability of turning back. But they resolutely kept their faces to the north for some days longer, meeting with lanes and ridges on their toilsome way, and sometimes falling into the water. On 8th April the prospect was still forbidding. From the highest hummocks nothing was to be seen but the same kind of rubble-ice, 'a veritable chaos of ice-blocks stretching as far as the horizon.' With the feeling that they were sacrificing valuable time and achieving little, Nansen determined to stop and shape their course for Cape Fligely. They were then at lat. $86^{\circ} 13.6'$, only 261 statute miles from their goal, and 195 miles nearer to the Pole than man had ever stood before. It was hard to give up when the long-sought object

was practically within attainment; but at the rate they were then advancing it would have taken two months more to reach the Pole, and with only two weeks' supply of food left and no game in that inhospitable region, it would have been suicide to go on, and prudence, as well as daring, was a characteristic of the Norwegian explorer.

Turning southwards, Nansen and Johansen had still to fight the conditions which had so ruthlessly robbed them of the coveted prize. Open waterways and wet snow delayed their march. There was no sign of land in any direction and no open water, and the number of the dogs, as they were killed to feed their companions, was growing rapidly less. The middle of June found them plodding hopelessly on, not knowing where they were, and there were moments when it seemed impossible that 'any creature not possessed of wings could get farther.' The provisions were dwindling, the sledges ran heavily in the terrible snow, and things were getting worse instead of better. But never for a moment, in spite of the great odds against them, did the brave men think of yielding. They had many escapes as they fought their way together. Unknown to the travellers, a large bear had been following them for some time, and when it saw

its opportunity it pounced upon Johansen. Taken by surprise, he lay at the animal's mercy, and would have lost his life had not his companion come to the rescue, and with a bullet despatched the enemy.

Land at last was sighted on 24th July, and reaching the open water on 6th August, Nansen and Johansen took to their kayaks; and gliding before the wind, skirted along the shores of several glacier-covered islands, landing on one of them four days later, and having the solid earth under their feet for the first time in two years. On their return journey they had travelled 430 miles in four months. Reaching the north end of Franz Josef Land—though the travellers did not know till months afterwards that it was there they had landed—Nansen and his companion remained on it for 267 days, passing the long winter in a hut which they erected for themselves, and living like the natives on bear, seal, and walrus. Fortunately this food did not fail them; but they suffered much from the cold, the temperature in their hut frequently falling considerably below zero. Remaining in their winter-quarters till 19th May, they then started out in a south-westerly direction along the land, intending to cross over to Spitzbergen at the

nearest point. Travelling was still difficult, and the dangers were by no means at an end. Proceeding southwards over the shore-ice, they sometimes found it possible to use a sail on their sledges, which skimmed along before the wind like boats on the water. In this way they made good progress, discovering new islands or lands, and finding in this snow region much that was fascinating and mysterious.

Reaching the edge of the ice on 12th June, they saw the blue water spread invitingly out before them. Lashing their kayaks together and hoisting the sail, they put to sea, and speeding along under a favourable breeze reached the south of the land on which they had been wintering so long. Putting in to the edge of the ice, when evening fell, that they might relieve their stiffened limbs by walking, they fixed their tiny canoes to the ice, and ascended a neighbouring hummock in order to obtain a view over the water to the west. Suddenly Johansen cried out that the kayaks were adrift. Both men ran to the edge of the ice with all speed; but by the time they reached it, the canoes were already well out and drifting quickly off. Realising that not a moment was to be lost, Nansen hastily threw off some of his outer garments and

plunged into the ice-cold water. But it was hard work swimming with clothes on, and as the kayaks were drifting more quickly than he could swim he was very doubtful of his ability to reach them. But everything depended upon the result of his efforts. All they possessed was drifting from them on the slim boats, and Nansen well knew that life itself was in the balance. Swimming on his breast and back alternately, Johansen watching him all the time from the ice-edge in an agony of mind, and utterly unable to render any assistance, Nansen fought his way through the water till his limbs stiffened and lost their feeling, and he was just on the verge of collapse when he reached the kayaks. With difficulty he pulled himself on board; but he was so stiff with cold that he could scarcely paddle ashore. Having succeeded so far, he was determined not to fail now, and making a mighty effort he brought the kayaks back to a place of safety, and though utterly exhausted and benumbed he quickly recovered.

The next day found both men again on the water. They were nearer to the end of their troubles than they dared to hope; but their adventures were not yet over. During the succeeding days they encountered herds of walrus. Then they

escaped for a time from their unwelcome attentions, and they were just congratulating themselves that there was no more to fear when suddenly a huge form shot up beside Nansen, and throwing itself on the edge of the kayak tried to upset it with its strong tusks. In vain he applied the paddle with all his might to the animal's head. The blows fell harmlessly; the deck was already under water, and the walrus was clearly having the best of the combat, when it turned round and disappeared as quickly as it had come. The kayak, however, had been injured in the struggle and was leaking badly, and to avoid sinking Nansen ran it on to a sunken ledge of ice.

On 17th June, as described in the preceding chapter, Nansen dramatically fell in with Jackson, of the Jackson-Harmsworth Expedition, then exploring in Franz Josef Land; and after remaining for some time with the English party, he and his companion sailed in the *Windward*, and reaching Norway on 13th August were welcomed with great enthusiasm. Only one thing was required to complete the rejoicings, and that was the safe return of the *Fram*, of which nothing whatever had been heard. Her arrival, however, was not long delayed, for only seven days later—on 20th August

—Nansen received a telegram from Captain Sverdrup, telling him that the *Fram* had arrived in good condition and that all on board were well.

The adventures of the *Fram* after Nansen's departure in March 1895 can be told in a very few words. At that time the vessel lay ice-bound in twenty-five feet of ice. Little variation occurred in the drift during the next few months; but there were occasional disturbances in the ice, and on 9th August the floe on which the vessel rested suddenly burst. But though the *Fram* was again in the water, she was not clear of her winter haven. There was now little probability of the *Fram* drifting farther to the north, and as the exploration of that region had been undertaken by Nansen and Johansen, Sverdrup felt that, in accordance with his instructions from Nansen, he ought to make for open water and home by the shortest way and in the safest manner. But they had still another winter to pass amid the floes. It went by without outstanding incident. On 1st February they passed the longitude of Vardo, and on the 15th they were in $84^{\circ} 20'$ N. lat., and $23^{\circ} 28'$ E. long. Afterwards the drift westward was very slow, but it was better towards the south; so that on 16th May they were at $83^{\circ} 45'$ N. lat., and $12^{\circ} 50'$ E. long.

By the end of the month the explorers were able to see a good deal of open water, and after much blasting of the ice the *Fram* was freed from her prison, though even then she was unable to force her way through. The ice slackened considerably towards the middle of July, and steam having been got up, the vessel began to move and to push through the densely packed ice. On 13th August the *Fram* steered through the last ice-floes out into the open water, having in less than a month forced a passage for a distance of 180 miles, and seven days later Norway was reached in safety, the long voyage having at last come to an end.

Another expedition had returned. What had it accomplished? The Pole was still unconquered, but the foot of man had travelled far on the way that leads to it, penetrating much farther than had ever been done before. If inability to reach the glittering, ice-bound goal is to be regarded as a failure, it is the only serious failure that can be laid to the charge of the enterprise; for, in spite of the dull periods that came during the first year, when Nansen fell under the gloom of despondency and saw some of his hopes pass from him, there came brighter days, rich in achievement, that stamped the expedition with the hall-mark of success. A wide

sea of oceanic depth had been discovered, and for hundreds of miles its waters had been traced. An area of 50,000 square miles of unknown waters had been traversed. The direction of the Polar currents had been ascertained, and Nansen's theories in great measure vindicated. All previous records as regards nearness to the Pole had been surpassed. The districts covered had been carefully examined, and their conditions closely observed. The *Fram*, novel in design as she was, and at first the scorn and the butt of experts, had more than justified Nansen's faith in her, and her stout timbers had fought a winning battle with the grinding floes. Nansen and Johansen had performed a wonderful sledge journey into unknown regions. Not a man had been ill during the three years' absence, and they all returned in the best of health, pleased with their adventures, and more than satisfied with what had been achieved.

Our knowledge of the Arctic regions was thus enlarging, and the Pole itself was coming within the range of the attainable.

CHAPTER XIII.

TO THE POLE BY BALLOON, SHIP, AND SLEDGE.

THE years that immediately followed Nansen's attainment of the 'Farthest North' witnessed a remarkable rush of other undertakings. In its frozen isolation, the Pole still lured men from home and country, casting over them the spell of its glamour and romance, and offering them, as the reward of conquest, the prize that had been the dream and the magnet of every explorer who had sailed into the kingdom of ice and death.

The methods which had been employed for centuries having failed to bring adventurous man to the Pole, was there not some other means whereby the well-kept secret could be dragged from its hiding-place? Salomon Auguste Andrée, a Swedish professor and aeronaut, provided the answer. In 1895, he laid before the Academy of Sciences a well-matured project for exploring the regions of the North Pole with the aid of a balloon; and a national subscription, to which the King of Sweden liberally contributed, having been opened, the necessary funds were speedily obtained, and the

daring explorer was thus given the opportunity of demonstrating his theory.

Looking back on the outcome of the undertaking, it may seem surprising that the money was so quickly forthcoming, and that from the occupant of the throne downwards, the Swedish people should have cherished such confident visions of success. But the plan, on the face of it, appeared feasible enough. Andrée was not a visionary with enthusiasm as his only asset. For some years he had filled a chair in the leading Swedish school of technology. He had been a member of a Swedish meteorological expedition that had passed a winter in Spitzbergen, and had directed experiments in atmospheric electricity; and he had also held an important engineering position under the Swedish government. On his way to America, in 1876, to serve the Swedish exhibitors at the Centennial Exhibition, he was impressed with the seeming regularity of the trade-winds, and the possibility of balloon voyages across the Atlantic then occurred to him.

Having interested others in his project, he began the construction of a large balloon, which he named the 'Eagle,' and erecting a balloon-house on Dane's Island, Spitzbergen, he made everything ready for

the great enterprise, and waited for the south wind which was necessary for a start. The favourable breeze came on Sunday afternoon, 11th July 1897, and with two companions, Nils Strindberg and Knut Fraenkel, he made the ascent. Flying free, the balloon rose to a height of about 3000 feet, and disappeared from view in about an hour after leaving the earth.

‘With a fairly strong wind,’ wrote one of Andrée’s companions just before the start, ‘we will make from ten to twenty knots an hour, and will reach the Pole, or a point near to it, in from thirty to sixty hours. Once having reached the northernmost point, we don’t care where the wind carries us. Of course, we would rather land in Alaska, near the Mackenzie River, where we would very likely meet American whalers, who are favourably disposed toward the expedition. It would really be a glorious thing to succeed so well. But even if we were obliged to leave the balloon and proceed over the ice, we should not consider ourselves lost. We have sledges and provisions for four months, guns and ammunition; hence we are just as well equipped as other expeditions as far as that is concerned.’

Four days after the balloon’s departure, a carrier-pigeon alighted on the rigging of the sealer *Alken*,

then cruising in the vicinity of Spitzbergen. Attached to a tail-feather of the bird was a small tube, containing a message in the handwriting of Andrée as follows: 'July 13, 12.30 P.M., latitude $82^{\circ} 2'$: longitude $15^{\circ} 5'$ east. Good progress eastward, 10° south. All well on board. This is the third pigeon despatch. Andrée.' There was no doubt whatever as to the genuineness of the message—the only one ever received from the occupants of the balloon. Expeditions went in quest of Andrée and his companions; but all search was fruitless, and the manner of their death will probably remain a mystery for all time. Whether they landed in the sea and were drowned, or descended on the loose pack-ice south-east of Spitzbergen and perished there, when they found it impossible to sledge over the rough surface of the frozen water, are problems that have been discussed, but never solved. It was another failure added to the long list, and more lives had been sacrificed upon the frozen altar that had claimed its victims from many nations.

Captain Otto Sverdrup, who had gained experience of Arctic exploration under Dr Nansen, and had brought the *Fram* safely back to Norway after Nansen and Johansen left her on their famous journey towards the Pole, returned with that vessel to the

northern waters in 1898. During the first winter the ship was ice-bound in Rice's Straits; in the autumn of 1899 the expedition entered Jones's Sound, and remained there for two years, determining by the explorations carried out the insularity of Grinnell Land, and penetrating to latitude $85^{\circ} 42'$. Sverdrup returned, after an absence of three years, having lost only one of his party by death, the surgeon, Dr Jensen, who had passed away during the first winter in the ice.

A year after Sverdrup's departure—in June 1899—Prince Luigi, Duke of the Abruzzi, sailed from Christiania in the *Polar Star*, a strong whaling-vessel, with a well-equipped expedition, hoping, as so many had done before him, to reach the apex of the northern hemisphere. Son of the late Prince Amadeo, of Italy, his life had not been passed in luxurious idleness; for, besides possessing physical strength, the Duke is a man of great scientific and scholarly attainments. Passing much of his boyhood under the shadow of the Italian Alps, as some one has said, it is not strange that the mountains should have lured him to ascend to the tops of the globe on which no man stood before. One of his earliest and most daring adventures was to ascend to the summit of Mount St Elias, one the highest

mountains of the Alaskan range, in 1897. He was the first man who had ever reached the peak of that great mountain, which he measured as 18,000 feet in height, and during this expedition, which occupied thirty days, he discovered a new glacier and two new peaks.

Deciding to explore the Arctic regions, he spent two years in the preparation of his plans, consulting with Nansen, Nordenskiöld, and other Arctic explorers, and learning from their own lips the secrets of their successes and failures. Proceeding to Franz Josef Land, the *Polar Star* was beached in Teplitz Bay, on Prince Rudolf Island, and there winter quarters were established. In the following spring, sledge parties under Captain Cagni started on their way towards the Pole, and, in spite of tremendous difficulties, reached, in April, latitude $86^{\circ} 33' 49''$, exceeding Nansen's record by eighteen miles, and planting the Italian flag well in front of all its rivals. In the hard work of the expedition the Duke manfully took his share with the others. During one of the preliminary sledge trips in the spring, he had his right hand severely frosted, and two of his fingers had to be partially amputated; but under this misfortune he remained cheerful and active, and did much to keep his men

bright and happy amid the darkness of the long winter day.

Another explorer who has striven hard, but always in vain, to reach the Pole is Walter Wellman, an American traveller and journalist. In 1894 he led an expedition into the White North, reaching latitude 81° north-east of Spitzbergen; and four years later he again ventured into the frozen wilderness, making more progress on this occasion, when he attained latitude 82° , and discovered many islands. This party consisted of four Americans and five Norwegians, and their departure from the little town of Tromsö, in Norway, was made in June 1898, in the steamer *Frithjof*, a staunch ship specially built for hard work in heavy ice.

The expedition was not without its adventures, and was characterised by what Mr Wellman himself has described as 'one of the most remarkable tragedies, and one of the finest deeds of human courage ever recorded.' Two men, Paul Bjoervig and Bernt Bentzen, both of them well accustomed to Arctic conditions, volunteered to remain at an outpost of the expedition during the winter, to care for the dogs and guard the stores and equipment, while the remainder of the party passed the long, dark days at headquarters. Reaching this outpost

towards the end of February to relieve the two men who had been exiled there, Wellman was met at the hut by Bjoervig, who told him that Bentzen was dead. Later on, as they sat in the cold hut, Bjoervig described the passing away of his friend, who had been taken ill in November and lingered on till the second day of January. 'Where have you buried the body?' asked Wellman. 'I have not buried him, sir,' was the reply. 'He lies in there,' pointing to the dark end of the hut. 'Why did you not bury him, Paul?' 'Because, sir, I promised him that I wouldn't.'

Wellman tells us that the words at first did not appear to him to mean very much—only that a dead man had not been buried—but gradually the full proportions of the tragedy dawned upon his consciousness. 'This man with the black face, who was cutting up walrus meat and feeding the fire, had been compelled to pass two months of the Arctic night with no other companion than the body of his friend. I lit a little oil-lamp, and made my way into the dark end of the hut. On the floor at my feet lay a one-man sleeping-bag, empty, with a blanket tumbled over it, and showing signs of occupancy the night before. Just beyond, within arm's reach, lay a similar bag. This one was occu-

pied. The flap at the top had been pulled carefully over the face of the sleeper within. Bag and contents were frozen as hard as a rock. There, side by side, the quick and the dead had slept for eight weeks. As I looked at this weird scene amid the shadows, under the scintillating roof of hoar-frost, and thought of the long days that were as nights, and the long nights that were no darker than the day, and of the ordeal it is for any one of us when compelled at home to sit, even for a single night, with companions in a brilliantly lighted apartment, by the side of a dead friend; and of this living man who had for months lain there absolutely alone by the dead, I marvelled that Paul Bjoervig was still sane.'

When the men who had accompanied Wellman came in to supper, Bjoervig told them how he had come to promise Bentzen not to bury him. During his illness the latter became delirious, and talked of his wife and home. He was low-spirited after that, and one day he said to his companion, 'Say, Paul, I am not going to die up here; but if I do, old fellow, promise me you won't bury me out in the snows.' 'I will promise you on one condition, Bernt,' answered Bjoervig, 'and that is, that in case I die first, and my chances are just as good as

yours, you will not bury me either.' And so the solemn compact was made. Then in a little while, Bentzen added, in explanation of his request, 'Paul, I don't want the bears and foxes to get me.'

The next day they buried Bentzen by the side of a large rock, and built a cairn of stones over his grave. Later on in the day, the mercury fell 44° below zero, and a strong wind blowing off the mountain made it too cold to work out of doors. Missing Bjoervig, Wellman went to look for him, and found him working beside his friend's white resting-place, over which he had erected a neat cross, with the name of his companion upon it and the date of his death. 'For hours,' Wellman adds, 'he kept at his self-appointed task, patiently chinking up all the little interstices between the rocks which covered the grave. "Because I want to make sure the bears and foxes don't get him,"' he said.

This expedition also was marked by an extraordinary disaster which overtook Wellman's sledge party in Franz Josef Land in March 1899, and put a sudden end to the dash Polewards then in progress. At the time of the occurrence they had covered about 140 of the 700 statute miles which

lay between their winter-quarters and the very top of the earth. Falling into a crack in the ice on 20th March, Wellman hurt his right leg, and though when the accident happened he regarded it as the worst of ill-fortune, it was probably the means of saving all their lives two days later, when an extraordinary upheaval of the ice occurred. When that took place they were in the one spot where it was possible to escape. Had it not been for the injury to Wellman's leg, they would have been able to travel faster than they did, with consequences that in all likelihood would have been fatal to all.

On 22nd March, a terrible storm from the north-east burst over the little party; the air was filled with drifting snow, and all around them the ice opened in great cracks. The floe on which they stood tilted over, the one edge down in the boiling sea, and the other up in the air, and hastening over the quaking pieces and across a chasm, in which the water was running like a mill-race, they reached a larger floe, which offered them a little more safety for the time being. But though the party had escaped a terrible death, they had suffered serious loss. Some of the dogs were missing; food, clothing, and instruments had also disappeared, and

under these circumstances the dash to the Pole was ended, for it would have meant death to proceed farther without food or equipment.

When the storm had subsided, Wellman turned back to examine the cause of the mighty upheaval. There before him stood a giant iceberg, 'rising 40 feet above the surface of the water, with its feet upon the earth, perhaps 150 feet below.' The wind had set the whole ice-field in motion, and driven the ice down upon the great berg. 'The mountainous berg had sawed the ice-sheet, and into the channel thus formed, the pressure of billions of tons, coming from rear, right, left, had jammed, rolled, revolved, uplifted, down-thrust, crunched, crushed, powdered the fragments of floes in a death-struggle for mere place to exist.'

Though defeated on this occasion, Wellman made another attempt; but only once more to return without achieving the coveted distinction of finding the Pole. On 2nd September, in his airship, the 'America,' he started from his headquarters at Virgo Bay, Spitzbergen; but beaten back by storms, he was forced on to a glacier, and there his undertaking had to be abandoned.

The failure of these expeditions to attain their principal object was qualified by a series of minor

successes, which compensated in some measure for the time and money expended in the great quest. But there was no failure in the attempt of the Danish seaman, Roald Amundsen, to navigate the North-west Passage. For long years navigators had sailed the frozen seas looking for a passage that would connect with the west, and following upon repeated reverses, the honour of its discovery fell to the men of Franklin's unfortunate expedition, who did not live to come back to tell of their achievement. On 18th December 1850, Sir Robert M'Clure also solved the problem of the passage, not knowing then that four years earlier it had been discovered by Franklin's party. Even when the existence of a passage round North America was demonstrated, it was doubtful whether it was practicable for ships, as no one had ever navigated it throughout.

That was the problem that Amundsen set himself to solve, and solve it he did. Leaving Christiania with the tiny ship, the *Gjøa*, built originally as a fishing-boat, on 16th June 1903, he passed along the coasts of Iceland and Greenland, navigated Davis Strait, Baffin Bay, Lancaster Sound, Barrow Strait, Franklin Strait, James Ross Strait, round King William Land, then through a succession of other

straits to Cape Parry and Franklin Bay, along the coast of Alaska, reaching Cape Nome on 31st August 1906, and thus sailing through the strip of open sea to the west, and tracing it from end to end by one ship's keel.

It was a grand achievement, and in successfully accomplishing the voyage Amundsen not only demonstrated the existence of a complete navigable passage, but realised at the same time something of the long, long dreams of youth. For he had been a boy with ambitions. When Nansen returned from his wonderful Greenland expedition in 1889, Amundsen, then a lad, stood with throbbing pulses among the crowds who welcomed back the popular hero, and as he listened to the tumultuous cheering, some voice seemed to whisper to him: 'If you could make the North-west Passage!' That was the birth of the idea, which remained with him till the great feat was accomplished. The time came when he went seal-fishing, and later on he took part in the Belgian Antarctic Expedition, during which voyage he thought much on the dream of his boyhood, and began to lay his plans.

The voyage began, as we have seen, in 1903. Excellent progress was made from the very beginning, and though ice was encountered, it was not

heavy enough to cause any considerable delay. On the night of 31st August, the expedition almost came to a sudden and a terrible end. The stillness of the night was broken by an awful shriek, which reached the commander's ears as he was entering in his journal the events of the day, and looking up he saw a mighty flame, with thick, suffocating smoke, leaping through the engine-room skylight. Instantly he knew what it meant. The engine-room, where there were tanks containing 2200 gallons of petroleum, was on fire. If the fire should reach the tanks the *Gjøa* and everything on board would be blown to atoms. All hands set to work with feverish haste. The fire-extinguishing appliances, always kept in readiness for such an emergency, were brought into play, and knowing that their lives depended upon their exertions, the men pumped water on the fire till the danger was past. It had, indeed, been a miraculous escape, and one that illustrates the importance of seemingly trivial things. Shortly before the fire broke out, Amundsen himself tells us, the engineer reported to him that one of the full petroleum-tanks was leaking, and he ordered him to draw the petroleum from that tank into one of the empty ones immediately. The order was carried out without delay. An examina-

tion of the engine-room, after the fire had been extinguished, showed that the tap of the empty tank had been wrenched right off during the struggle with the flames. Had Amundsen's order not been promptly obeyed, over a hundred gallons of petroleum would have spurted out into the engine-room, with consequences that would inevitably have been fatal to all.

Soon after this occurrence, another serious adventure befell the *Gjøa*. Running aground, the vessel was lifted up by the high, choppy sea and pitched upon the rocks. It seemed impossible for the ship to hold together, buffeted as she was by the wind and waves. The expedition seemed ruined, and as far as could be seen nothing could be done but abandon the *Gjøa* to her fate. Bumping on the bare rocks, she lay at the mercy of the elements; but fortunately she slid off again into the water, and skilful navigation brought her safely away from the many shoals that lay around and into deeper and safer water.

A couple of winters were passed among the ice in a little anchorage in King William Land, which they christened Gjøahavn, and there an observatory was built for the carrying out of magnetic observations. The channels at last being open, the vessel

left Gjöahavn on 13th August 1905; but in the following month the ice again proved too powerful an enemy, and at King Point the third winter in the Frozen Land was passed. King Point was left on 10th July the following year, and the remainder of the famous passage was then successfully navigated.

One other expedition—the Anglo-American enterprise of Ejnar Mikkelsen and Ernest De K. Leffingwell—may be briefly noticed in this chapter. Leaving British Columbia in their ship, the *Duchess of Bedford*, on 20th May 1906, they found the condition of the ice so bad that they could not pass Cape Barrow, and early in September they went into winter-quarters. The season was a hard one, and the ship fell a victim to the pitiless ice. Carrying out a sledge journey in the spring of 1907, the explorers experienced many of the difficulties and hardships which had fallen to the lot of earlier travellers in these barren and inhospitable regions; but they were not easily dismayed, and with praiseworthy enthusiasm struggled on, in face of the opposing elements, till they could find no way anywhere. But they did not return till they had made one important discovery, a negative one, it is true, but still of great significance. They found deep water close to the Alaskan coast, establishing

the fact that no land exists to the north of that country.

Success and failure. That is the story told in this chapter. The great success was not yet grasped, but it was coming nearer.

CHAPTER XIV.

PEARY'S TWENTY YEARS OF ARCTIC STRUGGLE.

IF it is not in mortals to command success, they can still do much to deserve it, and no man has ever struggled harder or with more persistence to reach the goal of his ambition than Robert Edwin Peary, the American naval officer and Arctic explorer. About twenty-three years have passed since, on a wet winter evening, he stood before a small audience in a room at Brooklyn and talked about his first visit to Greenland in 1886, when he made a sledge journey upon the great inland ice-cap. Unknown outside of his own engineering department in the navy, this young man had already dreamed dreams of what he might do in the White North; but these dreams were locked up within his own breast, no one sharing the secret. But Peary was about to step out from his obscurity. An account of his Brooklyn lecture found its way into the newspapers, and the man, who was burning with enthusiasm for Arctic exploration, was dragged into the full glare of the public, where he has remained, more or less, ever since.

Nine voyages altogether has Peary made into the Arctic regions, bravely facing their dangers, overcoming their difficulties, discovering their secrets, learning from experience how to cope with their peculiar conditions, improving the methods of sledging, and coming gradually nearer to the glittering Pole that lured him again and again into the 'hell of shattered ice'—to borrow one of his own phrases. It was the thing that he must do, he confessed on one occasion, and until it was done there was no resting-place. It was a path of infinite hardship and suffering; but tread it he must, till he stood at the crowning summit and planted there the flag of his country.

There is nothing in all the long and terrible history of Arctic exploration to compare with the fixity of purpose and determination of Peary in his protracted fight with the frozen elements. Other men have been baffled in the desolate wilderness of the North only to return to it and fight better because of their defeat; but none of them ever maintained the struggle as Peary did, or repeated it so often. Early in his career he expunged the word defeat from his vocabulary. There were times when his expeditions failed to obtain the necessary financial support, when the lack of money stood in

the way of his preparations; but he lectured and persuaded till the funds were forthcoming. Amid the ice and snow of the Frozen Land, his courage remained undimmed through every trial and difficulty; the thought of success stimulated him to heroic endeavour. On several occasions it seemed as if he had only to stretch out his hand and grasp the golden prize, when suddenly Nature in her sternest mood came between him and the goal, and drove him back, not into disappointed inactivity, be it noted, but to the place of planning and preparation for fresh effort and achievement. Peary's heroism revealed itself not only in battling with the awful conditions of the Arctic, but in his humble acceptance of the buffetings of fate and in his unconquerable spirit that refused to acknowledge defeat, and that prompted him on to further and yet further endeavour, in spite of all reverses and discouragements. Whatever may be said of Peary's attitude in what may be described as the most trying circumstance of his life—and we shall come to that presently—he stands unique in the long and honourable line of Arctic explorers on the ground of his unfaltering loyalty to the object of his life, the number of his expeditions, and the merit of his achievements.

Peary's introduction to the Frozen North, as we have seen, began in the year 1886, when he made a summer's reconnaissance of the Greenland ice-cap; and it was not long before he again answered the call of the North and returned to its frigid regions. Sailing from New York—and for this admirable summary of Peary's Arctic explorations I am indebted to Mr Herbert L. Bridgman, secretary of the Peary Arctic Club, New York—accompanied by Mrs Peary and a party of five, in June 1891, he established winter-quarters on the eastern side of M'Cormick Bay, lat. $78^{\circ} 10'$, long. 69° W. There the winter was passed in preparation for the land journey, and on 10th April 1892, accompanied by Eivind Astrup, Peary began his attempt to cross Greenland to the north-east, which ended, on 4th July, at Navy Cliff, Academy Bay, lat. $83^{\circ} 27'$, long. $61^{\circ} 10'$, where he gained an unbroken and commanding view of the Arctic Ocean, demonstrating the insularity of Greenland, an achievement for which he subsequently received the gold medal of the Royal Geographical Society and the Cullen gold medal of the American Geographical Society. Returning in 1893 with a larger party, Peary established headquarters at the head of Bowdoin Bay, also an arm of Inglefield Gulf, lat. $77^{\circ} 43'$,

long. $63^{\circ} 10'$, where, on 12th September 1893, Marie Ahnighito Peary was born; and, in March 1894, renewed his attempt to cross the inland ice-cap and to push his explorations farther to the northward. An unprecedented equinoctial storm and a plague among his dogs frustrated his plans, and on 29th August the party, except Peary, Hugh J. Lee, and Mat. Henson, returned to the States. In the following spring the three men made a successful attempt again to cross the ice-cap, though failure to recover the provisions cached the previous year, 120 miles from headquarters, was a serious obstacle and compelled return with only about fifteen miles farther north than had been made two years before.

In 1896 and 1897, Peary again visited Greenland, bringing home the 90-ton meteorite, which had been seen seventy years before by Sir James Ross at Meteor Island, near Cape Sabine, and which had furnished the natives with tools and cutting implements, and is the largest known meteor in the world. Having organised the Peary Arctic Club, composed of a few of his personal friends, on 4th July 1898, Peary sailed from St John's, Newfoundland, in the *Windward*, and wintered in her in Allman Bay, lat. $79^{\circ} 10'$, long. $75^{\circ} 20'$, on the west side of Smith Sound, rectifying and recharting the

whole Bache Peninsula and Buchanan Sound country. On 1st January 1899, sledging along the ice-foot, he reached Fort Conger, isolated since Greely's departure in 1883. In June, Peary pushed westward, crossing the divide of Grinnell Land, and looked down upon the open and ice-free sea beyond. Leaving his headquarters at Etah early in March 1900, and Fort Conger on 15th April, he reached Lockwood's 'Farthest North' on 8th May; and a disintegrated pack and an open sea preventing farther advance to the Pole, rounded the northern end of the Greenland archipelago, discovering the most northern known land in the world, which he named in honour of the president of the Peary Arctic Club, Cape Morris K. Jesup. Pushing his explorations south-eastward to $82^{\circ} 10'$, $61^{\circ} 30' W.$, on 21st May Peary saw before him to the south the peaks of Independence Bay, which he had discovered nine years before, and realised that the demonstration was complete, and that the mystery which had surrounded the northern end of Greenland for a thousand years had been dispelled. The winter of 1900-1 was passed in the field, near Lake Hazen, Grinnell Land, and on 6th May 1901, Peary joined the *Windward* with Mrs Peary and Miss Peary on board, which had been ice-bound

since the previous September at Payer Harbour, near Cape Sabine. Wintering at Cape Sabine, 1901-2, in February, accompanied only by Henson and natives, Peary returned to Fort Conger and endeavoured to reach the Pole from Cape Hecla as a point of departure; but on 16th May, at $84^{\circ} 17'$, the highest then attained by the American flag, he was compelled by insurmountable pressure ridges and the condition of the ice to give up the attempt. Returning to Cape Sabine, he was met on 5th August by the *Windward*, with Mrs Peary on board, and reached Sydney, Cape Breton, on 15th September. In the spring of 1906 he succeeded in reaching $87^{\circ} 6'$ north latitude in the *Roosevelt*, or within 174 geographical miles of the North Pole, thus creating another 'Farthest North' record.

Here, in brief, we have a record of what Peary has accomplished; but the summary must be amplified if we are to know something that will bring us into closer touch with the man and his work. Behind this plain and unadorned statement of fact lie experiences of hardship and suffering, of courage and endurance, of grim fights with death in many forms—experiences which we might think could never have been crowded into the life of one man. These would make a book in themselves, and there-

fore cannot be included here; but I have selected one or two which show Peary to be a worthy successor of the brave navigators and explorers who, under the spell and glamour of the Frozen North, dared and died in the quest of the unknown.

Embarking upon his seventh voyage to the Arctic in July 1898, Peary was determined to remain there until he reached the Pole, his plan being to establish a base as far north as possible, and thence make a march towards the Pole with dogs and sledges. But before making this dash, he intended to send out parties to cache provisions along the route which he intended following, so that with reduced burdens he might travel faster, hoping by this arrangement to overcome the difficulty of carrying sufficient food for men and dogs. After encountering moving floes on the voyage, the *Windward* was eventually stopped by the ice in Allman Bay, 250 miles south of Sherrard Osborne Fjord, the point Peary had hoped to reach before being finally beset. Compelled by the state of the ice in Kane Basin to give up the idea of reaching Sherrard Osborne Fjord, Peary resolved to convey his supplies to Fort Conger; but to reach it meant travelling by a route never before trodden by man, along exposed coasts, with

the difficulties increased by the darkness of winter, which had now settled down.

Careful preparations having been made, Peary started from Allman Bay on 29th December; but hardly had he left the ship when it became evident that the difficulties were much greater than he had anticipated. Sweeping with terrific violence out of Kennedy Channel, a storm of wind opposed their progress during the first two days, and as the drifting snow was as fine as sand the sledges sank deeply into it and could scarcely be dragged along. Mountains of ice, rising to a height of seventy-five or a hundred feet at some of the headlands, towered above them, and these they attacked with picks, axes, shovels, and sometimes blasting-powder. Fighting against such conditions, both men and dogs soon suffered from strain, and as the march was so slow the provisions failed to hold out. 'Just south of Cape de Fosse,' says Peary, 'we ate the last of our biscuits; just north of it the last of our beans. At Cape John Barrow a dog was killed for food.' In this pitiable plight they forced their way till only one more headland lay between them and Fort Conger. Groping their way in the awful darkness, the three Americans and two Eskimos persevered in their final march,

struggling on, frozen and half-famished, for eighteen hours, till they reached the dilapidated building from which, fifteen years before, Greely and his party had begun the retreat which ended in a tragedy.

But though the end of the journey had been attained, the struggle was about to exact its penalty. Becoming conscious of a peculiar feeling in his right foot, Peary, by the dim light of a flickering lamp, found that both feet were severely frost-bitten, being, in fact, frozen solid. Surgeon Dedrick, who had accompanied the party, immediately gave the case his attention. For six weeks Peary lay helpless at Fort Conger, not only suffering agonies from the pain of his limbs, but also enduring mental tortures as he thought of what it would mean to him if he should lose his feet. The unremitting care of the surgeon, however, had its reward in the saving of the limbs, but no fewer than seven toes were hopelessly affected, and these could only be amputated on board the *Windward*, then lying 250 miles to the southward. With the temperature between sixty and seventy degrees below zero, the journey back to the ship was begun on 18th March, Peary being lashed to a sledge and covered with musk-ox skins. Though suffering agonies on the way, he did not complain.

Fortunately, the travelling was comparatively easy, and in ten days the *Windward* was reached. After the operation, Peary made a wonderfully speedy recovery, and by the beginning of April he was again busy preparing for the advance northwards.

The expedition, which began in July 1905, and during which Peary made another record march towards the Pole, was full of adventures and narrow escapes. It was this expedition, too, which, in Peary's own words, simplified the attainment of the Pole by fifty per cent.; accentuated the fact that man and the Eskimo dog are the only two mechanisms capable of meeting all the varying contingencies of Arctic work; and that the American route to the Pole and the methods and equipment, which had been brought to a high state of perfection during the past fifteen years, still remained the most practicable means of attaining that object.

After the usual encounters with the ice on the northward voyage, the *Roosevelt* reached Cape Sheridan, and on 5th September went into winter-quarters. There the winter months passed pleasantly, Peary confessing that he had never spent a winter in the Arctic regions so free from petty annoyances and discomforts, both physical and mental.

The return of spring was the signal for beginning active operations, and at the earliest possible date the sledge parties started off Polewards, the first band leaving Cape Sheridan on 19th February for Cape Hecla, the starting-point for all the sledges, and other parties following a few days later. Peary himself left the *Roosevelt* on the 23rd, and in three marches reached Cape Hecla. On 28th February, the various parties took their departure, and following in the rear, Peary hurried on with all available speed, cheered by the prospect of reaching the Pole at last. Leaving the land at Point Moss behind, on 6th March, he headed direct for the Pole, feeling that the battle was now actually won. For some days the ice was in motion everywhere; but it gradually became more quiet, and as there was very little wind the travelling was particularly good. His mind fixed on the task before him, Peary could think of nothing but the goal that lay ahead. At one time he was afraid that things were too favourable, and was oppressed with fears of open water farther on. At another, as we find from his journal, he was annoyed because the going was not faster; but he consoled himself with the thought that his advance parties were a good distance ahead, and that before long

he would be in his proper place 'at the very head of the line, breasting the air that comes direct from the Pole uncontaminated by any form of life.' Full of impatience as he tramped along, and grudging every moment given to rest, Peary dreaded the meeting with some obstacle, such as open water or impossible ice, that would put an end to the journey northwards. 'Will it break my heart, or will it simply numb me into insensibility?' we find him asking himself, as he tries to look ahead and the vision of failure rises up before him. 'And then I think, what's the odds?' he continues, in the philosophic mood that Nansen adopted in circumstances somewhat similar. 'In two months at the longest the agony will be over, and I shall know one way or the other; and then, whichever way it turns out, before the leaves fall I shall be back on Eagle Island, going over the well-known places with Jo and the children, and listening to the birds, the wind in the trees, and the sound of lapping waves.'

Delayed by gales and open water, and driven out of his course seventy miles to the eastward, Peary was cut off from communication with his supporting parties; and finding that he could no longer depend upon them, he determined to make

■ dash for the Pole with the party, eight in all, the equipment and the supplies which he had with him. Abandoning everything not absolutely essential, and bending every energy to set a record pace, they found themselves thirty miles to the good—the Eskimos estimated the distance at forty miles—at the end of ■ ten hours' march. Storms of wind and snow added considerably to the difficulties of the journey, the strain of which told severely on men and dogs, and as the latter gave out they were thrown to the others for food. The 20th of April brought the weary travellers into ■ region of open leads, trending north and south. Hurrying on between these leads, Peary and his companions resolutely kept their faces towards the Pole. Resting for a few hours, they resumed their march at midnight, pushing on with feverish haste to lessen the distance between them and the goal that was still luring them on, travelling as fast as they could till noon of the 21st, when they came to a final halt.

Restless as he was, and disappointed at once more having to stop before the end of all his striving had been reached, Peary would have liked to make the last dash with only one or two men; but he dared not do this in view of the condition of the

ice, and reluctantly he had to confess that once again the prize had eluded his grasp. Making observations, these showed that they had reached $87^{\circ} 6'$ north latitude, 'and had at last obtained the record, for which I thanked God with as good a grace as possible, though I felt that the mere beating of the record was but an empty bauble compared with the splendid jewel on which I had set my heart for years, and for which, on this expedition, I had almost literally been straining my life out.' But it was no use fighting against the inevitable, and warned by the drawn faces of his comrades and the skeleton figures of the few remaining dogs, Peary resolved to turn back from that point. Then, after hoisting a flag from the summit of the highest pinnacle, and leaving a bottle containing a record of the journey, the exhausted men turned their backs on the Pole that had drawn them on only to disappointment and defeat, and began the weary homeward march.

Trying as the outward march had been, the dangers of the return journey were even greater, and, besides, there was no longer the excitement of possible victory to encourage the men in face of hardships. Killing their dogs for food, and breaking up the sledges to provide fires for cooking, the

tired and dispirited explorers pushed on till leads forming around the floe on which they were traveling left them stranded on an island of ice. Was this, then, to be the end of the enterprise, and were the men who had suffered and accomplished so much to meet death in that cold and pitiless sea? Such a fate seemed inevitable. But just as they were preparing to resign themselves to the worst, two of the Eskimo scouts came hurrying back to the camp with the report that a few miles farther on the lead, two miles wide, was covered with a film of young ice and that there was a possibility of their being able to cross on snow-shoes.

It was a desperate chance, but they were prepared to take it, and carefully fixing on the shoes, without which the crossing was impossible, they made the venture, the lightest and most experienced Eskimo taking the lead, with the few remaining dogs attached to the long sledge following, 'and the rest of the party abreast in widely extended skirmish line, fifty to sixty feet between each two men, some distance behind the sledge.' They crossed in silence, the ice swaying beneath them as they skimmed along. What the result would be none could tell; but they all felt the

greatness of their peril, and Peary himself confesses that this was the first and only time in all his Arctic work that he felt doubtful of the outcome. 'When near the middle of the lead,' he says, 'the toe of my near kamik, as I slid forward from it, broke through twice in succession, then I thought to myself, "This is the finish," and when a little later there was a cry from some one in the line, the words sprang from me of themselves: "God help him, which one is it?" But I dared not take my eyes from the steady, even gliding of my snowshoes and the fascination of the glassy swell at the toes of them. When we stepped upon the firm ice on the southern side of the lead, sighs of relief from the two men nearest me in the line on either side were distinctly audible. I was more than glad myself. The cry I had heard had been from one of my men whose toe, like mine, had broken through the ice.'

Just in time had the crossing been made, for, as the travellers looked round for a moment before turning their faces southward, they saw 'a narrow black ribbon cut the frail bridge' on which they had crossed in two; 'the lead was widening again.' As by a miracle, they had spanned the gulf; but they were not yet out of danger.

Unable to find a route which they might traverse with any degree of safety, Peary and his men ascended a high mass of ice to have a better view of their surroundings and to look for a way of escape. What they beheld from their elevated position might well have struck terror into the boldest heart. Before them extended 'such a hell of shattered ice' as Peary had never seen before and hoped never to see again, 'a conglomeration of fragments, from the size of paving-stones to, literally and without exaggeration, the dome of the Capitol, all rounded by the terrific grinding they had received between the jaws of the "big lead" when its edges were together and shearing past each other.'

Once again death looked them in the face, for it seemed an utter impossibility to find a path through that 'frozen Hades.' But as long as they could keep a footing they determined to struggle on, and stumbling forward they fought for their lives at every step till, bruised and sore, they struck a better road. Taking the passage inside of Britannia Island, and thence to Cape May and Cape Bryant, the brave party suffered much from the want of food. For days on end they were on the verge of starvation. A hare that was shot

gave them the first full meal for nearly forty days. With snow falling around them, and without tent or covering of any kind, they lay down on the ground to sleep, dreaming of musk-oxen and of food to eat. Waking in the morning as tired and hungry as ever, they found the tracks of musk-oxen in the snow, and their hopes rose as they endeavoured to follow the trail. Sweeping the valley with their field-glass they could see no sign of a living thing; but later on they spied several black dots at a distance, and knew that they had located the herd. Climbing slowly towards them, Peary and a companion lay down behind a big boulder to rest and gather strength, for they dared not risk a shot before they were sure of their aim. Resolving at last on an attack, the two men grasped their rifles and rushing out from behind their place of shelter made straight for the animals, now less than two hundred yards away. An old bull that was standing guard gave the signal to charge, and in a minute the 'black avalanche of thundering beasts' was bearing down on their enemies. That was the most dramatic moment of Peary's life. Fortunately for him his shot went true, and the great bull fell dead. The maddened rush was stopped, and before the oxen



The 'black avalanche' of thundering beasts' was bearing down on their enemies.

could make their retreat over the ridge six of their number lay dead upon the frozen ground. That shot of Peary's saved the party, and for the next few days they revelled in the delights of a continuous feast.

Reaching the *Roosevelt* at the end of July, the expedition returned to America a few months later. After twenty years of heroic striving, Peary had again missed the prize, and as he looked back on all he had undergone, he sighed 'for the untiring energy and elasticity of twenty years ago with the experience of to-day.' It seemed as if he had deserved to win this time, he sorrowfully confessed. And so he had. But the victory was postponed only for a little while.

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CHAPTER XV.

THE POLE AT LAST!

THE Pole at last! Standing, on 6th April 1909, at the spot towards which the nations of the world had been struggling for nearly four centuries, and which had been his own dream and goal for more than twenty years, Commander Peary could hardly bring himself to realise that at last the great prize lay within his grasp. It had eluded him so many times before. Again and again he had risked his own life and the lives of those who accompanied him in his ambition to attain the peerless honour of being first at the Pole, and now as he stood at that mathematical point on the earth's surface, on that lone spot

Where no man comes,

Or has come since the making of the world,

and felt that the centuries long and thrilling race for the Pole was ended, and that victory had at length crowned the unbroken series of failures, he was quite unable to analyse his feelings. In that moment of moments it all seemed so simple and commonplace. But as he looked at the Stars and

Stripes floating proudly at the goal of the world's desire, a wave of passionate gratitude took possession of him, and he felt that, after all, he had not striven and suffered in vain.

Five months later, news of the great achievement was proclaimed to the world in a brief message despatched from Newfoundland. It was a message for which mankind had been long and patiently waiting, and as it flashed across the wires of the American continent and was cabled to the farthest corners of the earth, Peary knew that it would send a thrill into every heart that admires the achievement of a great deed. He did not then know, as others did, that just a week earlier the glorious honour which he chronicled had been claimed by a fellow-countryman of his own, neither was he aware of the controversy that was even then being waged round the story of the man who so emphatically asserted the genuineness of his accomplishment.

The situation was certainly one without a parallel in the long history of Polar exploration—two explorers within one week claiming to have accomplished the unrivalled feat of reaching the North Pole. And so it seemed that fate had been once more unkind to Peary and had robbed him of

the honour for which he had so manfully striven, for if the story of Dr Frederick A. Cook, the other claimant, was to be believed, he had planted the flag of the United States at the summit of the earth exactly a year before the same point had been reached by Peary.

But who was this Dr Cook who had succeeded in breaking all records, and how was it that he had accomplished this remarkable feat without taking the public into his confidence and telling them what he intended to do? Nobody had heard of his expedition; very few knew anything of the man himself, and thus like a bolt out of the blue sky came the startling news that he had climbed to the pinnacle of the earth's surface and planted there the flag of his country. There were, it is true, one or two people in America, intimately acquainted with the explorer, who professed no surprise at the achievement. They knew the character of the man, they declared, and judging by his earlier experiences, both in the Arctic and Antarctic regions, this was just what they expected.

Though he had not been lured from America by the wonderful fascination of the Pole, Cook, according to his own statements, had long entertained the ambition to lead an expedition in quest

of it, and it was while engaged in hunting in the northern latitudes that the great opportunity of his life came to him. On 4th July 1907, Cook left New York in a schooner belonging to a wealthy gentleman devoted to the hunting of big game. Late in the same year the schooner arrived at the limit of navigation in Smith Sound, and the conditions seeming favourable, the 'happy thought' occurred to Cook that he might make a dash northwards. They were then standing at a point within 700 miles of the Pole. The strongest force of men, the best teams of dogs, and an unlimited supply of food, combined with the equipment on board the yacht, formed an ideal plant from which to work out a Polar campaign. 'Here was my chance,' said the explorer. 'Here was everything necessary conveniently placed within the Polar gateway. The problem was discussed with my colleague. Mr Bradley generously volunteered to land from the yacht the food, fuel, and other supplies necessary for local use. There was abundant trading material to serve as money. My own equipment aboard for sledge travelling could be made to serve every purpose in the new enterprise. The possible combination left absolutely nothing to be desired. To assure success only good health,

endurable weather, and workable ice were necessary. The expenditure of a million dollars could not have placed an expedition at a better advantage. The opportunity was too good to be lost. We therefore returned to Etah to prepare for the new quest.'

Starting with this plausible introduction, Dr Cook proceeded to relate in detail the journey over the monotony of a moving sea of ice, until he and his companions found themselves beyond the range of all life, and the 'maddening influence of the shifting desert of frost became unendurable in the daily routine.'

But at last the great day came. 'On 21st April, the first corrected altitude of the sun gave $89^{\circ} 59' 46''$. The Pole, therefore, was in sight. We advanced the 14 seconds, made supplementary observations, and prepared to stop long enough to permit a double round of observations. Etukishook and Ahwelsh were told that we had reached the big nail, and they sought to celebrate it by an advance of savagery.' At last, as Cook continues, they had pierced the boreal datir, and the flag had been raised to the coveted breezes of the North Pole. 'The day was 21st April 1908. The sun indicated local noon; but time was a negative problem, for

here all meridians meet. With a step it was possible to go from one part of the globe to the opposite side—from the hour of midnight to that of midday. The latitude was 90° , the temperature minus 36° (equal to 68° of frost), the barometer 29.83. North, east, and west had vanished. It was south in every direction. But the compass, pointing to the Magnetic Pole, was as useful as ever.'

Naturally, the story was received with a good deal of scepticism, and Peary, full of wrath at the assertions of the pretender, expressed himself with no uncertain voice. Cook, he declared, had never been near the Pole, and there was not a word of truth in his story. But many people believed in him. He was fêted and honoured, declaring all the time that when his records came to be examined by experts his claim would be clearly substantiated. By and by his evidence was produced; but it could not bear examination, and almost as suddenly as he had appeared before the gaze of the world, Cook disappeared from the scene, leaving Peary to the full enjoyment of his untarnished glory.

In marked contrast to the hesitancy with which Cook's story had been received, the brief messages from Peary gave rise to no scepticism whatever, for here was a man, as shown in the preceding

chapter, who had given the best years of his life to the solution of the mystery, who, though baffled again and again, had refused to accept defeat, and now, when he announced that after twenty-three years of the most strenuous endeavour he had accomplished his ambition, the world accepted the claim with cordial unanimity, and satisfaction was expressed at his having at length achieved the mission of his life. The fact of his latest expedition, too, was well known. Leaving New York in July of 1908, he had started on his expedition in August, intending to be back in the United States by October 1909, so that he had kept very close to his programme. Before leaving New York, he had summed up the main features of his programme under four heads. These were: 1. The utilisation of the Smith Sound or 'American route' must, he contended, be accepted as the best of all possible routes, for it gave a land-base ■ hundred miles nearer the Pole than any other, and a good line of retreat, if any accident happened to the ship. 2. As a winter-base Cape Sheridan provided a wider range than any other possible base in the Arctic regions, being practically equi-distant from Crookes Land, the unknown north-east coast of Greenland, and nearest the Pole in 1906. 3. 'Man

and the Eskimo dog,' he stated, 'are the only two machines capable of such adjustment as to meet the wide demands and contingencies of ocean travel. Air-ships, motor-cars, trained Polar bears, &c., are all premature, except as a means of attracting public attention.' 4. The use of hyperborean aborigines (Whale Sound Eskimos) in the rank and file of the sledge party would, he felt sure, prove an obvious advantage.

This was Commander Peary's eighth voyage into the Arctic regions, and he meant it to be his last. The weary, unsatisfying years of battle with snow and ice had robbed him of the vigour and elasticity of youth, and he felt that he had reached an age which compelled the surrender of Arctic enterprise. He must win now or lose for ever the glory for which he had so bravely fought. And so he laid his plans with a care that left nothing to chance. After wintering at Cape Sheridan, Peary's sledge expedition left the *Roosevelt* on 15th February 1909, and started north of Cape Columbia on 1st March, the party comprising seven members of the expedition, seventeen Eskimos, a hundred and thirty-three dogs, and nineteen sledges. For several days they were held up by open water, but pushing on again they made splendid progress. At

various stages in the journey, the supporting parties returned to the ship, the last to leave being that under the command of Captain Bartlett, which started on the home-trail after the 88th parallel had been reached.

Having said good-bye to Bartlett, Peary, with five Eskimos, with supplies for forty days, with the sledges and equipment in the best of condition, and with the pick of the dogs, forced the pace, sparing neither himself nor his companions in his eagerness to penetrate to the utmost point. Here and there the ice was irregular, but on the whole the conditions were as good as could be expected. No difficulties arose to bar their advance. On 4th April the 89th parallel was passed, and two days later, on 6th April, Peary and his Eskimos stood where no human foot had ever been before—at the very Pole itself.

For thirty hours the explorer and his Eskimos remained at this bleak, frozen extremity, the same in appearance as the icy surface over which they had travelled, making observations, depositing records, and taking photographs. Leaving again on the following day, they arrived at the *Roosevelt* on the 27th, and a few months later all the members of the party returned in safety to

America, with the exception of Professor Ross G. Marvin, who had met his death by drowning on 10th April, forty-five miles north of Cape Columbia, while returning to the ship in command of a supporting party.

And thus the Pole has been conquered, and the story of its actual discovery is but a plain and unvarnished tale, marked by not a single incident of adventure nor a hair-breadth escape from death. For nearly four hundred years men had been struggling towards the goal; ships had been crushed in the fierce grip of the ice, all manner of tortures and sufferings had been endured, many lives had been sacrificed, and at the end of all this, Peary, after a monotonous succession of failures, journeys uneventfully to the great point of all the striving, without experiencing one [serious interruption on the march. It all sounds very tame and uninteresting, just as if the Arctic summit, weary of the long resistance, had determined to yield without further struggle.

Compared with some of the early chapters of Arctic history, such a commonplace conclusion is almost disappointing. But we have this to bear in mind, that Peary had anticipated every difficulty, prepared for every emergency, and reckoned

with every obstacle. He had carefully selected his men; the dogs were the very best that could be obtained; his Eskimos, after years of training at his hands, could be depended upon for the most trying and difficult work; the sledges received his own personal supervision, and they were packed under his direction; every precaution was taken. Profiting by the experiences of his earlier expeditions, Peary protected himself, as far as was humanly possible, against defeat, and all his care and preparation were amply justified by the result.

There was only one doubtful element; only one risk against which there could be no guarantee of safety. He could not control the vagaries of Nature, try as he might, and he had just to take his chance. What he feared most of all was the opening up of leads. At any moment the ice, which appeared as solid as a mountain of granite, might break up with a crack and engulf the daring party travelling on its surface; but here again Peary enjoyed the best of fortune, and for once circumstances combined to assist his plans. On the outward journey, as well as on the homeward run, the pace was rapid and the progress better than they had even dared to hope, and the feelings of all were well expressed by one of the Eskimos, in his

own quaint way: 'The devil is asleep or having trouble with his wife, or we never should have come back so easy.'

From a scientific stand-point the few soundings which Peary took in the neighbourhood of the Pole must be regarded as of prime importance. At a short distance from the land, between 83° and 84° , he found a depth of 110 fathoms. Later on, at the 85^{th} degree, the water was much deeper, a sounding of 825 fathoms being obtained, while five miles from the Pole itself the depth was found to be 1500 fathoms, with no bottom. From these soundings it is argued that what is known as the Continental Shelf, the shallow plateau extending over a varying distance from the edge of the coast-line, deepens somewhat rapidly in the Arctic Ocean. In another direction also Peary has made valuable contributions to scientific knowledge in these regions, several competent members of his staff having taken observations of the tides lying off Ellesmere Land, and off the north of Greenland, these observations also possessing a bearing on the existence of land.

The race for the Pole is over, but the real work of science has yet to begin. Before it lies a great task, for we know but little of those vast stretches

of frozen wilderness that lie within the Arctic regions. Whether we shall be the better of the knowledge is a question we need neither ask nor attempt to answer. The human mind is ever groping out after the unknown, and as long as man is man he will be pursuing the endless quest.

But it is something, after all, that patience and endurance and heroism have conquered another of Nature's secrets, and that the foot of man has climbed to the icy waste where lies the northern extremity of the axis round which our earth revolves.

That is another of the world's great achievements, and the man to whom it is due deserves the honour which is now for ever his.

CHAPTER XVI.

THE LURE OF THE SOUTH POLE.

IT is a long and a wonderfully thrilling story, as we have seen in the preceding part of this book, that is bound up with the history of Arctic exploration; the record of adventure in the regions of the South Pole is neither so long nor so rich in incident. Whatever may be the reason, the mystery of the Antarctic has never seized the public imagination nor stirred popular feeling in anything like the same manner as has the glamour of the North. Even among the brave men who have sailed the seas in quest of undiscovered lands there has not been the same rivalry to win the glory of first reaching the southern apex of the earth's surface. Putting the records of endeavour and achievement side by side, one cannot but be conscious of the wide, separating gulf. Almost as far asunder as the Poles themselves is the difference between them. Towards the glittering magnet of the North Pole one generation of explorers after another fought their way through lonely wastes of snow and ice, and every page of the fascinating story is red with

the blood of men who fell and died by the way. Heroism, glorious and undaunted even in death, and tragedy, grim and terrible, are twin-brothers throughout the whole of the long and weary struggle, the record of which is more romantic and wonderful than anything which the brain of the fiction-writer has ever conceived.

But when we turn to the South Pole the story is lacking in those elements which give colour and life to the voyages in the Arctic seas. No expedition has ever come to grief as did Franklin's party, and the bones of no gallant crew have been left to bleach on the icy desert. There is nothing in Antarctic enterprise to equal the tragedies that befell De Long and Greely; and it is doubtless due to the absence of the abnormal and the extraordinary that the interest of that individual who has come to be known in colloquial parlance as the 'man in the street' has not yet been thoroughly awakened to the happenings of explorers in the southern seas. To the scientist, however, the Antarctic Circle is teeming with fascinating problems, and if the expeditions have failed to provide dramatic situations and gruesome tragedies they have added not a little to our knowledge of unknown regions. And if this measure of success has been

achieved without the sacrifice of human life, it ought, surely, to be welcomed all the more gratefully.

Not only has the South Pole failed to captivate the public imagination in anything like the same degree as the North, but its history begins at a much later period, it being only within comparatively recent times that any serious endeavour has been made to solve the riddle of its frozen waters. Scientific discovery in the Arctic was encouraged by the prospect of opening up new routes for commerce, and in this way were established the prosperous seal and whale fisheries, whereas the South held out no such attractions, and the terrors of that inhospitable quarter of the globe did not stimulate investigation.

Before the days of Captain James Cook, who may be regarded as the pioneer of South Pole navigators, there was a wide-spread belief, generated and fostered by the map-makers, in the existence of a great southern continent, equal in area to all the rest of the land of the globe. A few attempts had been made to penetrate into the unknown region, but little was added to the scanty knowledge regarding it. In 1567 the governor of Peru despatched an expedition under the command of his nephew, Alvaro Mendana, to explore the Terra Australis

Incognita, and a second expedition from the same place, commanded by Queros, followed in 1605. After exploring in the southern Pacific, this navigator returned with a glowing story of the richness and beauty of the lands he had seen, and even formed projects for their colonisation. Other expeditions, one from Amsterdam in 1598 and another from France in 1675, sailed with the object of discovery; but it was not till the celebrated voyages of the illustrious James Cook so fully accomplished their purpose that the curtain began to be lifted from some of the long-guarded secrets.

Sailing the southern seas in the *Endeavour*, in 1768, he proved New Zealand to be an island, and did much to dispel the myth of a great Austral continent. That the problem might be definitely settled, the Fellows of the Royal Society brought their influence to bear upon the Government, with the result that Cook, in 1772, set sail with the *Resolution* and the *Adventure* on another expedition to the South Seas. Thoroughly exploring the southern ocean, Cook finally dissipated all belief of a continent, 'and henceforth the great southern continent disappeared from charts and from geographical controversy.' It was, however, replaced by an Antarctic continent, parts of which Cook

believed he may have seen, and in the existence of which he expressed a firm belief. Cook himself described the regions of the South as 'countries condemned to everlasting rigidity by Nature, never to yield to the warmth of the sun, for whose wild and desolate aspect I find no words. But,' he added, 'I can be bold enough to say that no man will venture farther than I have been, and that the lands which lie to the South will never be explored.' Vain and futile prophecy, as most prophetic utterances are!

'The importance of this voyage,' says Captain R. F. Scott, the famous Antarctic explorer, 'can scarcely be exaggerated; once and for all the idea of a populous, fertile, southern continent was proved to be a myth, and it was clearly shown that whatever land might exist to the South must be a region of desolation, hidden beneath a mantle of ice and snow. The vast extent of the tempestuous southern seas was revealed, and the limits of the habitable globe made known.' Cook's 'Farthest South' was in 71° 10' S., 1130 geographical miles from the South Pole.

During the forty years following Cook's last voyage the Antarctic seas were undisturbed by navigators, the unfavourable reports of the physical conditions prevailing there preventing further ex-

ploration; but the nineteenth century was only in its infancy when there came a revival of interest, and it is since that time that we know anything of what lies within the Antarctic circle. In 1819, an English sailor named William Smith discovered the South Shetlands, and, in the same year, Alexander I., Emperor of Russia, fired with the spirit of exploration, determined to send expeditions simultaneously to the North Polar and South Polar regions, despatching two ships to each destination. Under the command of Bellinghausen, the southern expedition, in the ships *Vostok* and *Mirni*, crossed the Antarctic Circle in 1820, and though they found progress blocked by the ice-packs, and did not proceed as far south as might have been expected, the enterprise was far from fruitless, for Bellinghausen discovered and named Peter I. Island and Alexander I. Island, and returned to Cronstadt in 1821, having lost three men in the course of his long and trying voyage. During this voyage, Bellinghausen found a fleet of American sealers in the neighbourhood of the South Shetlands, and it was just about this time that a brisk and profitable, though short-lived, whale and sealing industry began to be prosecuted in these waters. While engaged in fishing, the commanders of these vessels made

not a few discoveries of importance, these being chiefly associated with the names of Weddell, Biscoe, and Balleny.

In 1823, Weddell penetrated 3° farther south than Cook, reaching $74^{\circ} 15'$ in the sea which now bears his name, and brought back with him to England the first specimens of the Weddell seal ever landed in Europe. Despatched in 1830 to the southern seas, in a voyage that was intended to combine exploration with sealing, by a firm of London shipowners, John Biscoe, in January of the following year, began a circumnavigation of the Antarctic regions, discovering Enderby Land, named after his employers, the Biscoe Islands, and Graham Land. The voyage of John Balleny was marked by the first sad disaster in the history of southern exploration. Sailing in 1838 with the schooner *Eliza Scott*, 154 tons, and the cutter *Sabrina*, 54 tons, Balleny, in the following January reached the Antarctic Circle, and soon afterwards encountered heavy ice. Changing his course to the westward, he discovered Balleny Islands, a group of volcanic mountains, and a little later sighted Sabrina Land. Overtaken by a heavy gale, the two tiny vessels were tossed about at the mercy of wind and sea, and with all hands the *Sabrina* foundered.

Something like international competition had now entered into the race to the Southern Pole. In 1838, a French expedition, under Captain Dumont d'Urville, which had sailed from Toulon the previous year with the corvettes the *Astrolabe* and the *Zelee*, failed to reach the Antarctic Circle, but made discoveries which were named Louis Philippe Land and Joinville Island. In 1840, d'Urville, learning while at Hobart Town, where his vessels had harboured after their voyage, of the expeditions of Britain and America, determined to be in front of his rivals, and in spite of the fact that his instructions did not authorise such a step, he made a sudden dash south in the hope of adding fresh honours to his country's flag and new lands to the map of the world. In a certain degree he was successful. To a group of snow-covered mountains, some of which rose to a height of 1500 feet, he gave the name of Adelie Land; and after sailing for a whole day along a vertical cliff of ice rising about 130 feet out of the water, d'Urville concluded that there must be land behind such a solid mass, and gave to it the name of Clarie Coast.

Sailing on these waters at the same time was an American expedition commanded by Commodore Wilkes—an expedition which was unfortunate from

its very inception. There was much ill-feeling while the arrangements were being made, and several naval officers declined the command before Wilkes was persuaded to accept it. Six vessels composed the squadron, which was intended, according to official instructions, 'to explore the southern Antarctic to the southward of Powell's group, and between it and Sandwich Land, following the track of Weddell as closely as practicable, and endeavouring to reach a high southern latitude, but taking care, however, not to be obliged to pass a winter there.' It was also, after surveying in the Pacific, to 'make a second attempt to penetrate within the Antarctic region south of Van Diemen's Land and as far west as longitude 45° east, or to Enderby's Land, making your rendezvous on your return at Kerguelen's Land.' Ill-adapted for its task, the expedition was, perhaps, one of the most inefficient that ever set out to accomplish a great object, and it is entitled to a little admiration only on the ground of the heroism of its leader, who, while admitting the drawbacks under which it sailed and the folly of attempting such service in ordinary cruising vessels, unfortified for ice-navigation, declared that it had been ordered to go, and that was enough; go it should. In the

ice-encumbered seas the unseaworthy squadron had a rough experience. One of the tiny ships lost her rudder, and for three days lay at the mercy of the ice, and then, after being repaired as well as was possible under the difficult circumstances, returned to Sydney. South of the circle, Wilkes sighted land, which some days earlier had been observed by the French expedition, and other land, to which he gave the name of Wilkes Land. In spite of the protests of his officers and the advice of his surgeons, the American navigator continued to push his way westwards, and it was only when further progress became impossible and the health of his crews was in a precarious condition, consequent upon the long exposure to the severity of the weather, that he gave heed to the pleadings of those around him and reluctantly decided to return to Australia.

According to Dr Robert Mill, 'the voyage of Wilkes was one of the finest pieces of determined effort on record, considering the deplorable conditions against which he had to contend, both in the seas without and the men within his ships. He erred in not being critical enough of appearances of land; and his charts were certainly faulty, as any charts of land dimly seen through fog were bound

to be. Subsequent explorers have sailed over the positions where Wilkes showed land between 164° and 154° east, and if the land he saw there exists, it must be farther south than he supposed. It is certain that Wilkes saw land farther east, and it seems that he was as harshly judged by Ross and as unsympathetically treated by some other explorers as he was by his own subordinates.'

Britain had also a share at this period in Antarctic enterprise. After much effort, a Government enterprise had been organised in the interests of magnetic science. Two powerful vessels, the *Erebus*, 370 tons, and the *Terror*, 340 tons, were fitted out, and placed under the command of Captain James Clark Ross, an experienced Arctic explorer who had already planted the flag of his country at the North Magnetic Pole, and whose work has been referred to in an earlier part of this volume. Leaving England in 1840, this expedition, well equipped for its task, with an able and trusted commander and an efficient and enthusiastic crew, accomplished more than any other enterprise that had preceded it.

Early in January 1841, Ross boldly steered his two vessels into the dreaded ice-pack, undaunted by the terrors that had overcome his predecessors

in those waters. After ploughing southwards through broken ice for five days, he emerged into the open sea now known by his name. Sailing westwards, Ross discovered Victoria Land, and followed its mountainous coasts for 500 miles to the south, where they terminated in Mounts Erebus and Terror, 'the former of which was vomiting forth flame and lava from a height of 12,000 feet. He then sailed for 300 miles to the eastward along the perpendicular face of an ice-barrier which rose from 150 feet to 200 feet above sea-level. He landed on two volcanic islands devoid of vegetation, and sailed within 160 miles of the South Magnetic Pole.' In addition to successfully carrying out his magnetic survey, 'he sounded and dredged in deep water; he studied the temperature of the ocean, and with the assistance of Dr (now Sir Joseph) Hooker, he investigated the marine fauna and flora of the Antarctic; and till within a few years ago his observations supplied the most trustworthy information concerning the South Polar regions, and he described in a vivid manner all the anxieties, dangers, sufferings, and joys which the explorer experiences in those magnificent realms of snow and ice and volcanic fire, where hailstorms, fogs, and gales alternate with brilliant sunshine.'

Ross spent three summers in all in the Antarctic. Summarising the results of these voyages, Dr Mill says that the first summer 'brought unexpected and magnificent discoveries, tearing a great gap in the unknown area, and fortune smiled without interruption on the expedition; his second summer brought trouble and danger with but a trifling increase in knowledge, while the third led only to disappointment.'

After this busy period of enterprise, there followed a lull in Antarctic effort, the Arctic regions demanding more attention, chiefly in consequence of the tragic fate of Sir John Franklin and the numerous search-parties which went in quest of the missing explorers. But after an interval of forty years, there came an awakening of interest, and the expedition of H.M.S. *Challenger* (1873-6), commanded by Captain Nares (now Sir George Nares), although resulting in no new discoveries, accomplished admirable scientific work, the meteorological observations and deep-sea soundings being of the most valuable character. To the *Challenger* belongs the distinction of being the first vessel propelled by steam to cross the Antarctic Circle.

Interesting discoveries made by whaling-vessels have already been noted, and another one deserves

to be mentioned. During the voyage of the Norwegian vessel *Antarctic* in Ross Sea, in 1894, a member of the crew, Carstens Egeberg Borchgrevink, a young Norwegian resident in Australia, who had shipped as a sailor when he found that he could not accompany the vessel in any other capacity, discovered on Possession Island, where a landing was made, the first trace of vegetation found within the Antarctic Circle. Four years later, in 1898, Mr Borchgrevink commanded an expedition in the *Southern Cross*, fitted out by Sir George Newnes. Anchoring in Robertson Bay, off Cape Adare, Borchgrevink and nine companions landed with houses, stores, sledges, and dogs, and were the first party to pass a winter on the Antarctic continent. Meanwhile, the *Southern Cross* sailed back to Australia, returning to Cape Adare in the following season. After the party had embarked, the eastern coast of Victoria Land, as far south as Mount Terror, was explored, and the Great Ice Barrier was followed for about 300 miles to the eastward.

The Belgian Expedition in the *Belgica*, under Captain de Gerlache, in 1898, experienced many dangers and difficulties; but, in spite of these, was able to show a good record of useful work. Crossing the Antarctic Circle on 15th February, the tiny

ship—250 tons only—soon afterwards encountered a severe gale, and was run into the ice-pack for shelter. Taking advantage of the wide lanes that had been opened up by wind and swell, de Gerlache pushed steadily southwards, hoping to outdistance all previous explorers. Accompanying the expedition as surgeon was Dr Frederick A. Cook, of America, who some years later was to enjoy a brief season of notoriety when he claimed to have reached the North Pole. In an article which was published in an American magazine, Dr Cook gave a vivid picture of their experiences in the ice. ‘I can imagine nothing more desperate,’ he wrote, ‘than a storm on the edge of the pack. At best it is a cold, dull, and gloomy region, with a high humidity and constant drizzly fogs. Clear weather is here a rare exception. Storm with rain, sleet, and snow is the normal weather condition throughout the entire year. During the day of the 28th we were unable to get a glimpse of the sun, and were, in consequence, in doubt as to our actual position. I cannot imagine any scene more despairing than the *Belgica* as she pushed into the pack during this black night. The noise was maddening. Every swell that broke against the ship brought with it tons of ice, which were

thrown against her ribs with a thundering crash. The wind howled as it rushed past us, and came with a force that made us grasp the rails to keep from being thrown into the churning seas. The good old ship kept up a constant scream of complaints as she struck piece after piece of the masses of ice. Occasionally we would try to talk, but the deafening noises of the storm, the squeaking strains of the ship, and the thumping of the ice made every effort at speech inaudible. With our stomachs dissatisfied and our minds raised to a fever-heat of excitement, and with a prospect of striking an iceberg at any moment and going to the bottom of the sea, we were, to say the least, uncomfortable. When we had entered sufficiently into the body of the pack, and were snugly surrounded by closely packed ice-floes, the sea subsided, and here the overworked ship rested for the night.'

For a whole year the *Belgica* remained fast in the ice, escaping at last from her prison on 14th March 1899, after all the members of the expedition had suffered greatly from insufficient food and from the darkness of the long night.

As navigators were becoming bolder in their efforts to reach the unknown in the southern seas, they were experiencing some of the difficulties and

hardships that had for so long been the lot of Arctic explorers. The *Belgica*, as we have just seen, narrowly escaped destruction amid the fearsome elements. Not so fortunate was the *Antarctic*, which again ventured into the Frozen South, this time under the leadership of Dr Otto Nordenskiöld, ■ nephew of Baron Nordenskiöld, the famous Arctic explorer. Leading a Swedish expedition in 1901, he arrived at the South Shetlands in January 1902, and for two years wintered in a timber house on Snow Hill Island in $64^{\circ} 25'$ south. Crushed in the ice, the *Antarctic* sank; but fortunately there was no loss of life, Nordenskiöld and his crew being rescued by an Argentine gunboat before the relief-boat despatched from Sweden reached them.

A German expedition in the *Gauss*, under Professor Von Drygalski, discovered Kaiser William II. Land, off which (1902) the vessel went into winter-quarters, and returned home in the following year.

These were the beginnings of Antarctic enterprise, and they were leading up to greater and more determined effort to conquer the secrets of the Frozen South.

CHAPTER XVII.

SCOTLAND'S SHARE IN ANTARCTIC EXPLORATION.

CONSIDERING the great part which Scotsmen have taken in the colonisation of other lands, and in pioneer work generally, it is somewhat surprising to find the comparatively insignificant share they have had in Polar exploration. The Scotsman's propensity for wandering into the most distant parts of the earth long ago gave birth to the witticism that when the North Pole was at length reached a hardy son of Caledonia would be found comfortably sitting upon its summit! And yet Scotland has always left to her southern neighbour, and to other nations, the honour of establishing records in the Frozen North; and, apart from the valuable work of Dr W. S. Bruce, she has done practically nothing to learn the secrets that lie within the Antarctic Circle.

The work of Dr Bruce, however, is worthy of high honour. It has not been accompanied, it is true, by a flourish of trumpets, or by any of that blaze of publicity which has usually shone on expeditions into unknown regions; but it has, never-

theless, been rich in notable and abiding results. Never subordinating scientific research to the attainment of extreme latitudes or to the fascination of adventure on ice-floes, he has given years of quiet, patient, persevering study and effort to Polar conditions, and many branches of science have benefited by his labours.

The public record of Dr Bruce begins with his voyage to the Antarctic in 1892, when he sailed as naturalist on board the *Balæna*, one of a fleet of four Dundee whalers which had set out for the Weddell Sea to search for the Bowhead, or some similar whale, which, on the authority of Ross, was believed to exist there. Many years earlier, on New Year's Day 1843, that explorer had seen in Erebus and Terror Gulf 'great numbers of the largest-sized black whales lying upon the water in all directions,' astonishing him and his men by 'their enormous breadth.' They had also seen a species of whale 'greatly resembling, but said to be distinct from, the Greenland whale,' and it was on the strength of these, and other statements of a like nature, that this fleet of vessels sailed to the Antarctic seas. Fitted up with nautical and meteorological instruments, the *Balæna* was equipped for scientific work.

The usual weather in these regions was encountered—fog, sleet, rain, and squalls. Many icebergs were met with, some of these, according to an observer, being three or four miles long, and one a floating island of ice thirty miles long. Surface and deep-sea temperatures were recorded, and for the first time in Antarctic seas the reversing thermometer was used. Soundings were also made with Lord Kelvin's patent sounding-machine. Bottom specimens were secured, and floats were thrown out to test the direction and the speed of surface-currents. In the frozen waters, where flat-topped icebergs surrounded them on every side, they experienced a gale which the skipper of the *Balæna* described as the 'hardest that ever blew in the Arctic or Antarctic.' It was so stiff that for ten hours they steamed against it as hard as they could, and at the end had made only one knot. Any land that was seen was entirely covered with snow. The voyage, while not without some value from a scientific stand-point, did not succeed in its main purpose; for though many whales were seen, none were worth catching.

In 1896, Dr Bruce accompanied the Jackson-Harmsworth Expedition to Franz Josef Land, acting in the capacity of zoologist. In 1898, he again

sailed north, this time in the *Blencathra*, belonging to Major Andrew Coats, D.S.O.; and, later, he joined the *Princess Alice*, the Prince of Monaco's yacht, for scientific work in Spitzbergen.

At last the national expedition for which Dr Bruce had been long and earnestly pleading was rendered possible by the assistance of friends interested in the enterprise, and, without Government aid of any kind, the *Scotia* was fitted out, and left the Clyde in November 1902, beginning a voyage which, it has been said, 'established many facts and steamed through more than one fiction.'

By the end of the following January the *Scotia* was well advanced in the southern waters, and at midnight on 2nd February she reached the edge of the pack. Exploring in her first season 4000 miles of ocean, she wintered at the South Orkneys, where on the beach at Laurie Island, Ormond House and Copeland Observatory were built—the latter named after the late Professor Ralph Copeland, of Edinburgh, who had been one of the staunchest supporters of the expedition. During the winter months much valuable oceanographical work was carried on. On 27th November, the *Scotia* was able to put to sea, the ice having yielded and left a passage, and after calling at the Falkland Islands,

she passed on to Buenos Ayres, where necessary repairs were executed. There the welcome news was received from Scotland that as further funds were available the voyage might be prolonged. Plans were accordingly made for another visit to the South; and before sailing from South America, Dr Bruce had the gratification of seeing a cherished plan fulfilled, the Argentine Government having agreed to take over as a permanent meteorological station the building which he had erected on the South Orkneys.

After a call at the South Orkneys, where a party of six had been left at Ormond House to continue the regular meteorological observations during the *Scotia's* absence, Dr Bruce made another dash south. On 1st March, as told in the *Voyage of the Scotia*, they crossed their 'track of the previous year into a clear run to the south under canvas only, where a year before there was impenetrable ice and a sea freezing up for the winter.' Land was sighted on the following day, and 'steaming towards this we found it to be a lofty Ice-Barrier, and similar to the first discovery by Ross on the other side of the Pole. It stretched in a north-easterly and south-westerly direction, but heavy pack-ice prevented a nearer approach

than two miles.' The Barrier was traced for some distance. 'The surface of this great inland ice, of which the Barrier was the terminal face or sea-front, seemed to rise up very gradually in undulating slopes, and faded away in height and distance into the sky, though in one place there appeared to be the outline of distant hills; if so, they were entirely ice-covered, no naked rock being visible.' In the certain belief that they had discovered a new Antarctic land, the nature of the deposits and the shoaling water supporting the supposition of land close at hand, Bruce gave to it the name of Coats's Land, in honour of his two principal supporters.

The farthest south reached by the *Scotia* was latitude $74^{\circ} 1' S.$, longitude $22^{\circ} 0' W.$ On 23rd March a sounding was taken in $68^{\circ} 32' S.$ and $12^{\circ} 49' W.$, where Sir James Ross had reported a depth of 4000 fathoms and no bottom. A sample of blue mud was obtained, and a depth of 2660 fathoms was registered. 'So after sixty years,' to quote again the record of the voyage, 'the "Ross deep," and with it the hypothetical contours of the South Antarctic based thereon, have been obliterated from the map.'

The *Scotia* returned home in 1904. Reaching the Clyde in July, a great welcome was given to

Bruce and his comrades, King Edward, amongst many others, offering his congratulations 'on the completion of your important additions to the scientific knowledge and discoveries in the south-eastern part of the Weddell Sea.'

The discoveries made were in many respects far-reaching and important, and several museums were enriched by the unique collections which Dr Bruce brought back with him. In *The Scotia's Voyage* some of the observations are thus summarised: 'The ice conditions in these two seasons differed considerably. Thus in the summer of 1903 pack-ice was met with in latitude $60^{\circ} 20'$ S., longitude $43^{\circ} 50'$ W., which quite filled the Weddell Sea south of 60° S., and to the west of 28° W., as far as Graham's Land. In the following summer there is reason to believe that the sea was clear, at least to the north of the Antarctic Circle, early in December, and except for a stream of ice in 66° S., and 30° W., no obstacle was met with by the *Scotia* until near Coats's Land, in $72^{\circ} 18'$ S., longitude $17^{\circ} 59'$ W. It is not at all unlikely that the western part of the Weddell Sea is, in normal summers, covered with ice south of 65° S., as Ross, d'Urville, and Powell were unable to penetrate the pack found to the south of the circle. From the

observations made at the South Orkneys, the summers of 1902-3, 1904-5, and 1906-7 were cold, the islands being practically ice-bound at the beginning of the year, while in the summers of 1903-4 and 1905-6 the ice cleared away early in the season. It will be seen that many years' observations will be necessary before isothermal lines can be drawn with accuracy south of 60° S.; although by combining the existing data a tolerable approximation to the truth may be obtained, especially for the summer months.'

Dr Bruce has added to our knowledge along so many lines of science that it would require an expert in each department to describe his achievements; in a word, however, it may be said that he has brought hidden things to light and that no more enduring work than his has been accomplished in the Antarctic seas.

And that is something of which he and his country may well be proud.

CHAPTER XVIII.

CAPTAIN SCOTT'S EXPEDITION IN THE 'DISCOVERY.'

DOGGED determination has ever been a characteristic of the British race. When once its mind is set on an enterprise it generally succeeds in carrying it out. Much had already been done in the way of shedding light upon the mysteries of the Antarctic seas, but much more remained to be accomplished ere we could speak with anything like confidence of the vast regions that lay beyond the knowledge of man. The Great Barrier had mocked and defied one explorer after another, but it could not always block the way to the discovery of what lay far across its vast frozen stretches, for man has a wonderful faculty for triumphing over the forces of Nature, however stern and forbidding these may be, and the day was coming when even the terrors and dangers of the ice-mountains would fail to deter his conquering march.

Under the combined auspices of the Geographical Society and the Royal Society, and aided by a Government grant and by some munificent private donations, another expedition to the Antarctic was

organised. A specially designed ship, possessing tremendous strength in her bows, was built at Dundee, and named the *Discovery*—the sixth of that name associated with Polar enterprise—and the command was given to Captain R. F. Scott, an officer in the navy, with no experience of either Arctic or Antarctic exploration, but with a marked capacity for leadership, and for any enterprise demanding the qualities of courage and endurance.

The instructions, signed by the presidents of the two distinguished societies already named, under which the *Discovery* sailed from England in July 1901, were clearly defined. The objects of the expedition were to determine, as far as possible, the nature, condition, and extent of that portion of South⁴ Polar lands which was included in the scope of the expedition, and to make a magnetic survey in the southern regions to the south of the 40th parallel, and to carry out meteorological, oceanographical, geological, biological, and physical investigations and researches; neither of these objects, however, to be sacrificed to the other. 'The base-station for your magnetic work will be at Melbourne, or at Christchurch, New Zealand,' the instructions continued. 'A secondary base-station is to be established by you, if possible, in Victoria Land.

You should endeavour to carry the magnetic survey from the Cape to your primary base-station south of the 40th parallel, and from the same station across the Pacific to the meridian of Greenwich. It is also desired that you should observe along the tracks of Ross, in order to ascertain the magnetic changes that have taken place in the interval between the two voyages. . . . Owing to our very imperfect knowledge of the conditions which prevail in the Antarctic seas, we cannot pronounce definitely whether it will be necessary for the ship to make her way out of the ice before the winter sets in, or whether she should winter in the Antarctic regions. It is for you to decide on this important question after a careful examination of the local conditions. Should you decide to winter in the ice, your efforts as regards geographical exploration should be directed to three objects—namely, an advance into the western mountains, an advance to the south, and an exploration of the volcanic region.'

An uneventful voyage was made to New Zealand, Lyttleton being reached on 30th November, and after remaining there for a month the *Discovery* proceeded south, crossing the Antarctic Circle on 3rd January 1902. Ploughing her way through

the honeycombed floes, the *Discovery* had every opportunity of displaying her splendid qualities, the resistance of the frozen masses testing the strength of the massive bows, and giving the voyagers a foretaste of the greater difficulties which lay ahead. By the 21st of the month they were in the middle of M'Murdo Sound, creeping slowly through the pack. In the journey from Cape Washington to the south, Captain Scott himself tells us, they had already done something to justify the despatch of the expedition. A coast-line, which had hitherto been seen only at a great distance, and reported so indefinitely as to leave doubt in many minds with regard to its continuity, had been resolved into a great chain of mountains; the positions and forms of individual heights, with the curious ice-forms and the general line of the coast, had been observed. 'The lofty peaks of northern Victoria Land had been seen to be succeeded by a comparatively low mountainous country of peculiarly suggestive topographical outline, behind which a vast interior ice-cap appeared to rise to greater heights. Towards the 78th parallel, the flanking ranges of the continent again rose to great altitudes, and yet farther south we could see no tendency in them to turn towards the east, as it was supposed. In all

this we had been aided by the most astonishingly good weather, instead of the gales, thick weather, and snowstorms which we had expected.'

Steaming along the face of the gigantic Barrier, which sixty years earlier had brought to an abrupt end the triumphant voyage of Ross, Scott found the passage far from monotonous, some interesting variation showing itself every few hours. Less pack-ice was encountered than was met with by Ross, and the *Discovery* had almost penetrated to 150° west before the heavy ice barred farther progress. In longitude 165° the Barrier was seen to trend to the north, and there a heavily glaciated land, its higher summits rising to between 2000 and 3000 feet above the sea, with occasional bare peaks, was distinctly seen, and named by the expedition King Edward VII. Land, this being the first new territory discovered in the reign of his late Majesty. In 164° west the *Discovery* was brought to a standstill alongside a low part of the Barrier, and there preparations were made for an ascent of the captive balloon in order that an extended view of the surrounding region might be obtained. To Captain Scott fell the honour of being the first aeronaut to make an ascent in the Antarctic regions, and though the experiment yielded no practical addition

to their knowledge, it afforded a better glimpse of the ice-fields round about than was possible from the frozen tableland on which they stood. Returning to M'Murdo Bay, Scott made the interesting discovery that Mounts Erebus and Terror are on an island, thus confirming Ross's original impression, and he was able also to prove that M'Murdo Bay, instead of being a bay as was supposed, was really the opening of a strait leading southward between Ross Island (the name given by the expedition to the island from which Erebus and Terror rise) and the mainland.

Selecting their winter-quarters on the extreme south of Ross Island, 400 miles farther south than any party had ever wintered before, the expedition erected various huts on shore to serve as the stations for magnetic and other observations. According to the original purpose, the *Discovery* was not to winter in the ice, but to return north after landing a small party. A spot having been discovered, however, in which the vessel could winter with safety, Scott decided that she should remain in the ice, and thus the entire party were kept together, passing the time pleasantly enough, as work and entertainment were agreeably blended.

Before the winter set in properly, several recon-

noiring sledge parties were despatched in various directions, and brought back with them a valuable store of information that proved of great service when the actual sledging began some months later. One of these parties, climbing a volcanic peak, rising to a height of 2700 feet, saw the great snow-plain of the Barrier stretching without limit through east and south-east to south, and 'curling a long white arm around the island on which they stood.' To the west 'the same level of snow seemed to run deep into the fretted coast-line, and again they could see it beyond the high cape which limited our view from the ship,' while in the dim distance, south of the lofty western ranges, 'more high snow-covered peaks appeared.'

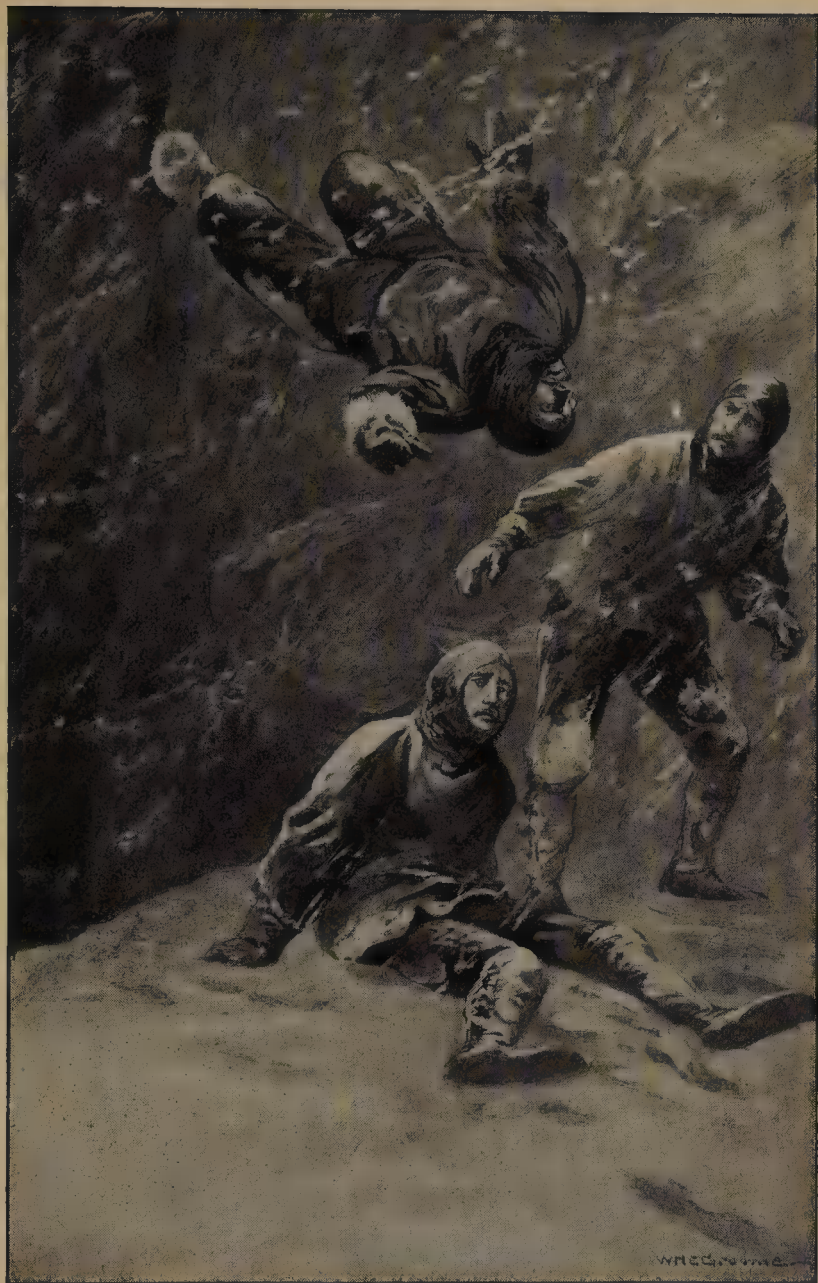
With one of these early excursions over the ice a story of disaster is associated. On 4th March, a sledge party, divided into two teams, each pulling a single sledge and each assisted by four dogs, left the ship. It consisted of four officers—Royds, Koettlitz, Skelton, and Barne, and eight men. For the first few days progress was exceedingly slow, the snow being soft, and the pulling, in consequence, heavy. It soon became evident that the only chance of making progress was to use snow-shoes, and as there were only three pairs of ski

with the party Royds decided to push on towards Cape Crozier, taking with him only two brother-officers, and sending the other members of the party back to the ship. They separated on the 9th. Very soon the returning party made the unpleasant discovery that if the advance journey had been difficult, it was no easier task to find their way back. Overtaken by heavy gales of wind, they suffered much from the bitter blasts, and, being unaccustomed to these Antarctic conditions, they doubtless imagined their position more dangerous than it really was.

Discussing the situation among themselves, they decided to abandon their sledges and push on unhampered. Before leaving these, Barne impressed upon the men as strongly as he could the importance of keeping together, as it was impossible to distinguish any object at a greater distance than ten yards on account of the falling snow. Two of the men were wearing fur boots, and to prevent them from slipping each had a companion on either side. Crossing a steep slope where it was difficult to obtain a foothold, soon after they had left the sledges behind them in the snow, one of the men, named Hare, who was at the rear of the party, was reported to be missing. In the violent squall which

was then raging, it was nearly impossible for the men even to see one another; but an effort must be made to find their absent companion, even at the risk of their own lives. Forming themselves into a human chain they shouted and blew whistles, and while these efforts were being made to attract the attention of Hare, and to find, if possible, some clue as to his whereabouts, another of the men, Evans, disappeared just as suddenly and mysteriously as the other. He had stepped back on to a smooth piece of ice, and the next moment he fell and was out of sight.

The situation was becoming worse instead of better. Alone on the terrible mountain of snow and ice, their ranks reduced by these sudden disappearances, the little party, unused to such conditions of travelling, and stunned by the tragic happenings, were in a sad plight. What was to be done? It was a moment for prompt action, and Barne immediately resolved upon a plan. Believing that the slope down which Evans had vanished was only a short one, like so many others in the folds of the hills, the officer cautioned his men to remain where they were, while he himself deliberately followed in the track of the missing man. It was not long before he discovered that he had



Another figure quickly shot through the gloom.

committed a serious error, for the slope, instead of terminating as he had expected, increased in steepness, and almost before he realised what was happening, he was sliding at a tremendous pace down the face of the wall of bare and slippery ice. Hoping to check his rapid flight, he whipped out his clasp-knife and dug it into the ice; but the effort went for nothing, the blade snapping off whenever it touched the smooth, hard cliff. The mad rush ended at last in a bed of soft snow, and rising up to examine his surroundings, Barne was astonished to find Evans within a few feet of him. They were just congratulating each other on their marvellous escape when another figure quickly shot through the gloom, coming to rest at their feet. This was Quartley, who, following Barne's example, had slipped over the edge of the slope to discover the cause of his absence, and had descended in the same swift, dangerous way.

It was utterly useless to think of attempting to return to their companions by the route they had descended, and it was only when they looked around for some other path that they discovered how wonderful had been their escape from a terrible death. Only a few paces from the spot at which their flight had ended they found that the slope ended suddenly in

a steep precipice, 'beyond which they could see nothing but the clouds of whirling snow.' As they stood recoiling 'from this new danger, and dimly realised the merciful patch of soft snow which had saved them from it, a yelping dog flew past them, clawing madly at the icy slope, and disappeared for ever into the gloom.'

Bewildered by the awful dangers hedging them round at every point, the three men stood huddled together, and it was only when the biting blasts had chilled them to the bone that they realised the necessity of action if they were to avoid freezing to death. Scarcely conscious of their movements in the whirling storm, they slowly made their way along the cliff to the right, and gradually came in sight of the sea lying far below. Then, in face of the blinding drift, they worked their way up the bare face of a cliff, and crouching under some overhanging rocks found a temporary shelter from the violence of the gale.

While these three had been doing battle for their lives, the situation of the other members of the party left standing at the head of the slope was equally troublous. Unconscious of the fate of their companions, and unable to penetrate the mantle of gloom that enveloped them, they could only stand and wait,

shouting with all their might whenever a lull in the storm gave a chance of their voices being heard. No response coming to their repeated calls, and their leader failing to return, they realised that they were in the presence of a calamity, and that, as they could do nothing to render aid, they must think of saving themselves. Striking out in the direction which they supposed led to the ship, the six men walked slowly along in single file, one called Wild leading. In this manner they proceeded along a slippery slope till they reached a valley. Seeing a precipice beneath his feet, the leader came to a sudden halt on the very edge of the cliff, springing back with a cry of warning. Checking themselves just in time, his companions dug their heels into the slippery surface and came to a halt, all except a man named Vince, who was wearing fur boots and could obtain no grip on the ice. In a flash he was over the face of the precipice, and out of sight and reach of the others.

Saddened by this calamity, the men turned away to begin anew their desperate fight for life. Beginning to ascend a steep slope, which seemed to offer the only path to safety, they struggled painfully up the treacherous rock, where one slip would have meant certain death. How they made their way to the top they could not tell; but at last the terrible nightmare

was over, and once more they stood on safe ground. Their troubles were not yet at an end, but the worst of the danger was past, and they eventually reached the ship in an exhausted condition, exactly a week after they had left it.

Though labouring under strong excitement, the men were able to give an account of what had happened. A search-party was immediately despatched under the leadership of Armitage, and as there was just the possibility that Vince, in falling over the cliff, might have landed on some projecting fragment of sea-ice, a whaling-boat, with Lieutenant Shackleton and ten picked men, set off to search the coast. Barne, Evans, and Quartley were brought safely back, but no trace of Hare or Vince could be found, and although another party went out on the 12th to continue the search, it met with no better success. On the following day an extraordinary thing happened. A solitary figure was seen slowly approaching the ship, and this turned out to be Hare. When he had recovered from his exhaustion, he told his story. Finding, it seems, that he could not walk in his fur boots with any degree of comfort or safety, he determined to return to the sledges and change into leather boots, and shouting this intention to his companions in front, he believed that they had heard

and understood. In the blinding storm he lost his way. Sitting down for shelter under a patch of rocks, he fell asleep, and on awaking found himself covered with snow. Recognising Crater Hill, he was able to find his way back to the ship. He was none the worse of his long exposure of thirty-six hours, though it was difficult to persuade him that he had slept so long, as he was fully under the impression that he had returned to the *Discovery* the day after parting from his companions.

With the return of spring, the preparations for the great work of exploration that lay ahead were pushed rapidly forward. By means of sledging, vast tracks of the Arctic ice-fields had been covered. Now, for the first time in the history of Antarctic exploration, the same methods of travel were about to be adopted, and Scott, in undertaking the task and adapting himself to the circumstances of the southern regions, revealed striking qualities of resource and leadership. No detail was overlooked; the preparations were of the most careful and complete character, and before the exploring party left the ship, a depot towards the south was established on the ice.

The great march into the unknown began on 2nd November, Scott, Shackleton, and Wilson starting off with four sledges and nineteen dogs. It was a

difficult and hazardous journey from the very beginning, much of the ground having to be covered three times, the loads, until they were lightened by the establishment of a depot to meet the needs of the return journey, being too heavy to drag over the surface of the soft snow. They were delayed, too, by severe snowstorms, and trouble with the food and the dogs, all of which gradually weakened and died, was an obstacle that had to be encountered and overcome.

In spite of hardships, however, the party pushed steadily southwards, dominated by the ambition of penetrating as far as they possibly could into regions which had never before been trodden by the foot of man, and throughout the long and trying march Scott maintained his buoyant optimism, making light of the difficulties and facing the dangers with a stout heart. Within a fortnight after leaving the ship they were nearly up to the 79th parallel, and therefore farther south than any one had ever been. 'We are already beyond the utmost limit to which man has been,' we find Scott writing in his diary, not without some pride and satisfaction natural in the circumstances; 'each footstep will be a fresh conquest of the great unknown.'

Towards the end of the month, we find this entry: 'Before starting to-day (November 25) I took a

meridian altitude, and to my delight found the latitude to be $80^{\circ} 1'$. All our charts of the Antarctic regions show a plain white circle beyond the 80th parallel; the most imaginative cartographer has not dared to cross this limit, and even the meridional lines end at the circle. It has always been our ambition to get inside that white space, and now we are there the space can no longer be a blank; this compensates for a lot of trouble.' On 2nd December they notice again 'the cracking of the snow crust; sometimes the whole team with the sledges got on an area when it cracks around as sharply and as loudly as a pistol-shot, and this is followed by a long-drawn sigh as the area sinks. When this has happened the dogs were terrified, and sprang forward with tails beneath their legs and heads screwed round as though the threatened danger was behind, and indeed it gave me rather a shock the first time — it was so unexpected, and the sharp report was followed by a distinct subsidence. Though probably one dropped only an inch or two, there was an instantaneous feeling of insecurity which was not pleasing.'

To the right of the travellers, as they doggedly pushed to the south, a new land appeared in sight at a distance of about fifty miles, as far as they

were able to judge, this consisting of a magnificent range of mountains, some of them rising to a height of over 10,000 feet. By the beginning of December the struggle had become considerably harder. Several of the dogs were doing practically nothing; the others were working only with an effort. Unless the explorers pulled hard themselves they could make no progress, and it was only with difficulty that they made even four miles a day. One day, on the 9th, they covered only two miles, and Scott confesses that to get on the second load at all they had to resort to the ignominious device of carrying food ahead of the dogs.

By 30th December the little party had reached latitude $82^{\circ} 17'$ south, and there they were compelled, by failing provisions, to stop. They were unable to reach the land owing to a great chasm in the ice; but they had already performed a wonderful feat, having easily surpassed all Antarctic records, and penetrated to within 463 geographical miles of the Pole. To the great range of mountains, which appeared to be trending south-eastward in the distance, names were given, one being called Mount Markham and another Mount Longstaff, the former being the highest of the group, about 15,000 feet.

The exploring party reached the *Discovery* on

3rd February, having plodded for ninety-three days, as Scott has put on record, 'with ever-varying fortune over a vast snow-field, and slept beneath the fluttering canvas of a tent. During that time we had covered 960 statute miles, with a combination of success and failure in our objects. If we had not achieved such great results as at one time we had hoped for, we knew at least that we had striven and endured with all our might.'

During the absence from the ship of the sledging party, the other members of the expedition had not been idle. In various directions summer parties had been at work exploring the neighbourhood and adding to their knowledge of their surroundings. Led by Armitage, a party had climbed the great Ferrar Glacier which descended from the western mountains, and owing to the treacherous nature of the snow-slopes over which they were travelling, Armitage nearly lost his life. Describing the incident later, Armitage said that while crossing the smooth ice he suddenly became conscious that he was taking a dive; then he felt a violent blow on his right thigh, and all the breath seemed to be shaken out of his body. Instinctively he thrust out his elbows and knees, and then saw

that he was some way down a crevasse, which seemed to be about four feet wide and broadened to right and left; below it widened into a huge, fathomless cavern. Telling him that his harness had held, Skelton threw down the end of the Alpine rope with a bowline in it, and slipping this over his shoulders Armitage was hauled up with a series of jerks and landed on the surface, feeling, as he himself said, as though he had been cut in two, and with not a gasp left in him.

The arrival of the relief-ship, *Morning*, which had left London on 9th July 1902, was heartily welcomed by the expedition, and when she sailed for the north several members of the *Discovery's* crew returned with her. Shackleton, whose health had given way under the stress and exposure of the great sledge journey, but who had persisted in sticking to his post, was also an unwilling passenger on board the *Morning*, one of whose officers, Lieutenant Mulock, took his place with the expedition.

For another winter the *Discovery* was firmly locked in the ice. The time passed happily and uneventfully, and, on 21st August, Scott was able to write: 'Our second long Polar night has come

to an end. I do not think there is a soul on board the *Discovery* who would say that it has been a hardship. All disappointment at our enforced detention has passed away, and has been replaced by a steady feeling of hopefulness.' Throughout the season the routine of scientific observations was carried out, and many new and interesting details were added.

Sledging operations began with the return of the spring, the most important of the journeys being that led by Scott into the western mountains. After an advance-party had gone out to find a new route to the Ferrar Glacier, and placed on it a depot in readiness for the greater effort over the ice-cap, Scott started out, in the later part of September, with four sledges; but a week later, when a height of over 6000 feet had been reached, the sledges broke down, owing to the runners giving way, and the party reluctantly returned to the ship. On the 26th they made a fresh start. Soon again the 'wretched runners,' as Scott described them, caused trouble; but while these difficulties and troubles were 'very annoying,' Scott was determined to push right on, even if they had to carry their loads. More than one blizzard was encountered as they ascended the bare,

icy slope of the glacier, the worst one of all attacking them on 4th November when they were about half-way up the slope. Almost at a run they hurried to the summit of the slope in the hope of finding a suitable camping-ground.

Already most of the party were frost-bitten in the face, and it was evident that unless a shelter was speedily found it would fare badly with them all. 'I shall not forget the next hour in a hurry,' Scott tells us. 'We went from side to side, searching vainly for a patch of snow, but everywhere finding nothing but the bare, blue ice. The runners of the sledges had split again so badly that we could barely pull them over the rough surface; we dared not leave them in the thick drift, and every minute our frost-bites were increasing. At last we saw a white patch, and made a rush for it; it proved to be snow indeed, but so ancient and wind-swept that it was almost as hard as the solid ice itself. Nevertheless, we knew that it was this or nothing, and in a minute our tents and shovels were hauled off the sledges, and we were digging for dear life.'

It was no easy task erecting tents on such a thin patch of snow and in such a storm as was then blowing; but after the canvas had been several

times blown down the work was accomplished, and the slender coverings stood upright. Into them the tired men crept, glad to find some shelter from the raging storm. They did not, however, bargain for such a long stay as that to which they were doomed. For a full week the explorers were confined to their tents, and Scott confesses that it was the most miserable week he ever spent. Almost without a lull the gale continued to rage with extraordinary fierceness, and for twenty-two hours out of each twenty-four the men lay in their sleeping-bags, enveloped continuously in a thick fog of driving snow.

Tired of their long and weary imprisonment, Scott and his companions resumed their march, though they could scarcely see half-a-dozen yards in front of them; but they felt that anything was better than inaction, and preferred to risk the numerous chasms and crevasses that threatened them at every step rather than remain longer imprisoned in their tents. It was heavy work trudging slowly over the ice, exposed all the time to the stinging fury of the wind, and it told so severely on several members of the party that they were compelled to return to the vessel. 'We have all deep cracks in our nostrils and cheeks,' Scott

wrote in his diary, 'and our lips are broken and raw; our fingers are also getting into a shocking state.'

By 30th November they had finished their last outward march. 'Thank Heaven!' is the entry in the leader's record, and he goes on to add: 'Nothing has kept us going during the past week but the determination to carry out our original intention of going on to the end of the month. Here, then, to-night we have reached the last of our tether, and all we have done is to show the immensity of this vast plain. The scene about us is the same as we have seen for many a day, and shall see for many a day to come—a scene so wildly and awfully desolate that it cannot fail to impress one with gloomy thoughts. . . . We see only a few miles of ruffled snow bounded by a vague, wavy horizon; but we know that beyond that horizon are hundreds, and even thousands, of miles which can offer no change to the weary eye, while on the vast expanse that one's mind conceives one knows that there is neither tree nor shrub, nor any living thing, nor even inanimate rock—nothing but this terrible, limitless expanse of snow. It has been so for countless years, and it will be so for countless more. And we, little human insects, have started

to crawl over this awful desert, and are now bent on crawling back again.'

What a vivid picture of the desolate wastes into which these brave men had journeyed! Little wonder that they were glad to turn their faces once more towards the ship, and to strive to reach her with all speed. By pluck and endurance they had dragged their sledges to the longitude of $146^{\circ} 33'$ east, a distance of 278 statute miles from the ship, over a surface of frozen snow 9000 feet above sea-level, and on 1st December they started to retrace their steps.

The wind was now behind the travellers, but new difficulties arose on the march. Slipping and falling, plunging blindly into yawning chasms and escaping only by a miracle, they gradually reduced the distance that lay between them and the comfort and safety of their vessel, which they reached at last on Christmas Eve.

The relief-ships, the *Morning* and the *Terra Nova*, reached the expedition on 5th January 1904, and on 19th February the *Discovery* escaped from the harbour, where for two years she had been locked in the embrace of the ice. The expedition was thus practically at an end; but Scott on his way back to New Zealand was able to follow

partly in the route of Wilkes, and to show 'that the land charted by the American expedition west of that meridian (154° east) did not exist in the assigned positions.'

The expedition had ventured far, and accomplished much. It had also prepared the way for a still greater effort.

CHAPTER XIX.

SHACKLETON'S FARTHEST SOUTH.

It was not to be expected that the achievements of Scott, brilliant as these were, would long remain as the record of Antarctic exploration. By demonstrating the practicability of sledge travelling, the leader of the *Discovery* expedition had opened up a new field of great possibilities, and it was inevitable that before many years had elapsed another attack, strengthened by the experiences of Scott, would be made on the frozen route leading to the mysterious Pole itself.

The man to make the attempt was Lieutenant Shackleton (since knighted in recognition of his work of exploration). Serving under Scott in the *Discovery* enterprise, he had accompanied his leader on the famous sledge journey that had broken all previous records, and had gained a thorough knowledge of the conditions of the desolate wastes lying between civilisation and the extremity of the Frigid South. By intimate acquaintance with the dangers of travelling over the frozen surface, he knew what to expect if ever

again he ventured into these ice-covered regions; but the spell of the South had entered his blood, and to the call that kept ringing in his ears there could be but the one answer. He rose up and obeyed. An expedition was organised, and after being visited by King Edward and Queen Alexandra as she lay at Cowes, the *Nimrod* sailed from England in August 1907.

Richer in achievement than any enterprise that had preceded it into the Antarctic, in this respect that the Pole was almost reached, the expedition in its trying experiences and numerous adventures bore a closer resemblance to Arctic explorations than any of its predecessors. The hardships of ice-travel, the fatigues of the long marches, the daily nearness of death in the dangers that surrounded their every step, the dogged battles with the pitiless blizzards, the sufferings caused by hunger and the weary existence upon reduced rations—these are all characteristics familiar in the long story of Arctic enterprise, but in their terrible combination introduced for the first time into the brave endeavour to reach the southern goal.

Shackleton was thwarted in his ambition to reach the Pole; but he failed with honour, and he failed not from any lack of courage or effort, but simply

because it would have been madness to push on. The food was practically gone, and the nearest depot lay miles away. Had Shackleton and his companions not been prudent as well as brave they would certainly have reached the Pole, but it is just as certain that they would never have come back to tell of their triumph. As it was, they struggled through and no more; they succeeded, but it was nearly a tragedy.

Leaving England for its voyage into the Antarctic regions, the expedition under Shackleton had before it every prospect of success. Its chances of getting close to the Pole were certainly brighter than those of the *Discovery*. As we have already seen, Scott had no experience of Polar exploration, and, in consequence, much of his work was experimental. Having been a member of Scott's party, Shackleton had profited by its experiences, and because of what he had seen and learned he was able to start out with everything in his favour. In its equipment the expedition differed but little from its predecessor, making a new departure, however, by using Manchurian ponies and a motor-car, though neither experiment can be said to have met with the success anticipated.

After calling at New Zealand, according to the

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usual custom of southern voyagers, the *Nimrod* left Lyttleton on 1st January 1908, and had not proceeded very far before she met with severe weather. Knocked about by wind and sea, the little vessel began to leak badly, necessitating anxious work at the pumps for some considerable time. Passing into clearer weather, the expedition was soon among the floating masses of ice, and entering Ross Sea the route lay along the edge of the Great Ice Barrier. Reaching M'Murdo Sound, winter-quarters were selected at a spot only twenty miles removed from the bay in which the *Discovery* had passed a couple of winters, and with as little delay as possible the necessary stores and equipment were transferred to land in order that the *Nimrod* might be able to return north before the season was too far advanced. The work was accomplished in good time, in spite of blizzards and other drawbacks, and on 22nd February the ship steamed away, leaving the exploring party to pass the long night on the lonely coast, and to prepare for the tasks that remained to be accomplished when the brightening days should dawn.

With the volcanic mountain, Mount Erebus, towering high above them, and forming an outstanding feature of the landscape, Shackleton and his men settled down to home-life in the Antarctic,

finding the time pass pleasantly enough, for there was a variety of occupations to engage their attention. One party, for example, climbed the long and slippery slopes of Mount Erebus, being the first men to reach its summit, and having accomplished the object of their climb, they descended 5000 feet in the remarkably short space of four hours by glissading over the snowy surface.

The coming of spring witnessed a period of much activity. The great event towards which all the preparations led up was the hazardous journey to the Pole, and before this expedition into the depths of the frozen wilderness was begun, it was necessary to make preliminary trial trips; provisions had to be laid along the ice-bound route, and the ponies and dogs needed training in the particular work required of them.

At last everything was ready, and on 28th October, the southern party, consisting of Shackleton, Dr Marshall, Adams, and Wild, with provisions for ninety-one days, and accompanied by a supporting party carrying provisions for fourteen days, turned their backs on the winter-quarters at Cape Royds, to begin the long journey over the blizzard-swept desert that led to the Pole which no human eye had ever seen.

Brilliant sunshine and a cloudless sky smiled upon the southward-bound travellers as they said good-bye to their companions and faced the goal, lying over 880 miles away. The favourable conditions, however, were only for a season; it was not long before trials in one form or another came to test the mettle of which they were made. One of the ponies went lame, and this caused some delay at Hut Point, where the first camp was made. Leaving there on 3rd November, the prospects seemed brighter, the weather remaining fine and the ponies pulling with satisfactory vigour. But the troubles of the journey were about to begin. Two days after leaving the camp the gusty wind, from which those regions are never entirely free, bore down upon the little party with such violence as to necessitate a halt; and as they lay in their sleeping-bags the following day, the blizzard continuing to make travelling impossible, Shackleton and his companions had to content themselves with a couple of biscuits each for lunch, in order that the delay might not make too great an inroad upon their food-supply, which, with careful management, might be made to last for a hundred and ten days.

When the journey was resumed, other dangers

were encountered, not the least of these being the dangerous character of the great plain over which they were making their way. Covered with snow, the plain was apparently level and comparatively easy to traverse; but closer acquaintance with the route revealed the terrifying fact that underneath the innocent-looking surface of snow lay numerous crevasses opening into bottomless caverns, and that unceasing vigilance must be exercised if these were to be avoided. Once or twice the escapes from death were nothing short of marvellous. One of the ponies led by Adams suddenly disappeared up to its middle in one of those concealed traps, and it was only after considerable difficulty that man and beast were rescued from a terrible fate.

Dépot A was reached on 15th November. Taking part of the stores awaiting them there, the travellers resumed their way southwards. One day was very like another as they trudged over the apparently limitless waste. Leaving their sleeping-bags soon after five in the morning, breakfast had to be prepared, and preparations made for the day's journey; so that it was nearly eight o'clock before they were able to get on the march. Much of the travelling had to be done in single file, each man taking his turn at leading and breaking the trail. Camp was

usually pitched about six, and then, sitting down to the evening meal round the stove inside the tent, the four explorers enjoyed the rest which they had so well earned after the expenditure of so much physical effort.

Reaching, on 21st November, the second depot, in latitude $81^{\circ} 4'$ south, they left some provisions for the homeward journey, and killed one of the ponies, as fresh meat was required for the depot and to carry with them, and, in addition, the food supply of the animals was already becoming seriously reduced in quantity. Marking the spot at which the stores had been left, they made a new start to the southward, the three ponies now doing the work of four and pulling splendidly over the gradually improving surface. Soon after leaving the depot, 'new land appeared to the south—a range of ice-covered mountains, upon which the eye of man had never before dwelt; and something like awe possessed the travellers as these snow-clad heights rose up, white and majestic, in the distance. Only one circumstance lessened the pleasure with which the discovery was made, and that was the fear that, as the trend of the mountains was about south-east, there was just the possibility, if they continued in that direction, of their blocking the passage to the south, and

thus forcing the travellers to find some way up their steep and slippery heights.

The 26th November was a memorable day with the little party, for they then passed the 'Farthest South' previously reached by man, and at night found themselves in latitude $82^{\circ} 18\frac{1}{2}'$ south. Still pushing their lonely way into the vast unknown, 'the tiny black specks,' as Shackleton described himself and his companions, 'crawling slowly and painfully across the white plain,' found once more a treacherous surface, into which the ponies from time to time sank very deeply. Reaching Depot C on the 28th, another of the little horses was shot. The halt there was brief, and on the four brave men went into the 'weird and wonderful country,' in which the only familiar thing was the 'broad expanse of the Barrier to the east.' Steadily they were making their way south, accomplishing a good march each day, in spite of the many difficulties, and having covered over 300 miles due south in less than a month. This was distinctly encouraging. Each step was taking them farther into the unknown land, and adding to the record which they had already established; so that, with all the trials and dangers that so thickly beset their path, the compensating features were not altogether

absent. The two remaining ponies by this time were almost exhausted, and, in addition, were suffering from snow-blindness, and one of them had to be reluctantly shot.

By the 1st of December, the travellers were living mainly on horse-meat; and a day or two later crevasses once more threatened life and hindered progress, the men being sometimes right up to them before the danger was discovered. One false step would have precipitated them into the 'blue-black depths' of the caverns, and brought the expedition to an untimely end; so that the greatest care was necessary if they were to avoid calamity. To get the sledges over these openings in the surface was a task of no little difficulty; but by reducing their loads, and returning for what had been left behind, it was successfully accomplished. One enormous chasm, of about 80 feet wide and 300 feet deep, lay right across their route, making a detour necessary.

Leaving the ice of the Barrier, Shackleton and his companions began the ascent of the great glacier, climbing Mount Hope in order to see what lay beyond the mountains. The 7th December was almost darkened by a terrible tragedy. In the diary which he faithfully kept day by day,

Shackleton has put on record that the crevasses this day were particularly bad, and that in the slopes of deep snow the pony frequently sank down to his middle. They were marching along the perilous route, when suddenly a cry for help broke from the lips of Wild, and rushing at once to his assistance, his companions were horrified to see the pony-sledge with the forward end down a crevasse, and Wild reaching out from the side of the gulf and grasping the sledge. Wild was speedily rescued, but the pony had disappeared, and though they got down on their stomachs and looked over into the gulf, nothing could be seen of the missing animal; no sight save a black, bottomless pit met their gaze.

Deprived in this tragic manner of the assistance of their hardy little horse, the travellers philosophically made the best of the situation; and hitching themselves to the pony-sledge, thus adding to their already heavy burden, they crept along through the maze of crevasses and rotten ice until they reached a spot where they could with safety pitch their tent and encamp for the night. The finding of such a resting-place was not easy. The first inviting patch did not bear close examination, the axes going right through the ice when stuck into

it to find out whether there were any more hidden crevasses, and, as the travellers did not relish the prospect of making a sudden descent during the night, they were compelled to make a search for a more secure camping-ground.

Such experiences as these just described were typical of the lurking dangers which surrounded the little band at practically every step of the way. It needed eternal vigilance, as well as a steady eye and a sure foot, to carry them over the innumerable pitfalls, and none but those possessing the stoutest hearts could have continued for such a time to tread a road so thickly strewn with death-traps. Two days after the pony's disappearance the four travellers were still in the danger zone; but not all their unceasing watchfulness could guard against the yawning pits that threatened destruction at every turn. Slender bridges of snow covered the crevasses and concealed the depths far beneath, and thus, while they thought their footing secure, they might be treading a covering which at any minute would yield beneath their weight and precipitate them into the dark and dismal abode of death. Marshall had an exceedingly narrow escape, being saved only by his harness after he had disappeared down

below the level of the ice; and, soon afterwards, Adams and Shackleton had in turn a similar experience and, fortunately, a similar escape.

The conditions, instead of improving, grew worse. 'Sharp-edged blue ice, full of chasms and crevasses, rising to the hills and descending to gullies,' making 'a surface that could not be equalled in any Polar work for difficulty in travelling.' Often it was impossible to drag more than one sledge at a time over this sharp and treacherous surface, and after pulling one sledge for about a mile they would return for the other, in this way adding infinitely to the day's toil, and retarding progress to such an extent that one day they covered a distance of only three miles. Shackleton tells us that this day they were a mass of bruises, where they had fallen on the sharp ice, but they had not sustained even a strain; so that, with all their trials, they had still cause for gratitude.

The 14th December provided the travellers with one of the hardest day's work they had experienced up till that time. All day long they were steering their way up the glacier, 'mainly in the bed of an ancient moraine, which is full of holes, through which the stones and boulders have melted down long years ago.' Snow fell nearly all day, and as

the temperature was high everything became very wet. But there was no standing still, for every moment was precious; and after ascending over 1000 feet that day, they found themselves 5600 feet above the level of the sea. It had been a heavy pull, with many falls on the slippery ice by the way, and, just before they halted for the night, Adams had another wonderful escape, sinking through some soft snow and being 'held up over an awful chasm.' The following day found them in latitude 84° 50' south.

Eager to make all possible haste and to reach the goal, if that were within the power of human endurance, they decided to travel from this stage onwards with as little weight as they could, taking only the clothes in which they stood, and leaving behind four days' food, which Shackleton calculated should get them back to the last depot on short rations. They had now traversed nearly a hundred miles of crevassed ice, and risen 6000 feet on the 'largest glacier in the world.' 'One more crevassed slope,' wrote the leader in his diary, 'and we will be on the plateau, please God.'

And so the brave little party fought their way farther and farther south, dragging their sledges over smooth ice that scarcely gave a hold to the

feet, working all day long at their task, struggling against the biting wind that stung their faces, cutting steps with their ice-axes as they went along, and using the long Alpine rope to haul the sledges up the precipitous slopes. Nature was resisting their advance at every point; but the courage of the conquering explorers never forsook them, and they continued to press ahead, even when there would have been no dishonour in beating a retreat. They were, indeed, making a gallant race, and they deserved to win. Climbing the hill-side that he might obtain a view of the plateau, Wild returned with the news that it was in sight at last, and brought back with him some specimens of coal, several seams of which, mingled with sandstone, he had discovered on the way.

Reaching the plateau on 18th December, they continued to ascend, and, though tired and hungry, worked hard at the sledges. Anxious to save the food that it might eke out as long as possible, they were limiting their daily supplies, and each night as they lay down hungry in their sleeping-bags, they dreamt of tempting banquets and of tables laden with all that the appetite of man could desire. Christmas Day found them on the summit of the plateau, in 48° of frost, among drift-snow, and

buffeted by a cruel south wind. For the first time for many days they enjoyed the luxury of a good meal, in celebration of the occasion. There is pathos in Shackleton's entry for this day: 'We are full to-night, and it is the last time we will be for many a long day. After dinner we discussed the situation, and have decided to reduce our food still further.'

Before them still lay a long road; they had 570 statute miles to do to get to the Pole and back to where they then stood, and as they had only one month's food and three weeks' biscuits, they resolved upon making each week's food last ten days, and have one biscuit in the morning, three at midday, and two at night—not a very strengthening diet, and one that proved quite insufficient for their needs; for before many more days had passed, Shackleton and his companions were suffering from severe headaches, and they were finding afresh that 'the Pole is hard to get.' In their weakened condition, the party suffered more and more from the cold. On 30th December a blizzard drove them to the shelter of their sleeping-bags, after they had been but four hours on the road, and that day's travel was four miles only.

The old conditions still prevailing, we find them on 2nd January moving with heavy steps through the soft snow, Shackleton's head giving him trouble all the time. But he cannot think of failure. He feels that the crucial moment is approaching; that he must consider the lives of the men who accompany him, and that if they go too far it may be impossible to get back over that terrible surface, and thus all the results of their arduous struggle would be lost to the world. He is now able to 'locate the South Pole on the highest plateau in the world'—a fact certainly worth discovering; but it nevertheless leaves the melancholy reflection that 'this is not the Pole.'

By 4th January the end was in sight, for the explorers were rapidly weakening. Two days later another blizzard swept down upon them, and for the next couple of days they were confined to their bags, with the temperature ranging from between 60° to 70° of frost. When they again were able to step into the open, they recognised (on the 9th) that their outward march was about ended, and that they must think of turning back. Starting at 4 A.M. for their last rush southwards, ere they began to retrace their steps, and taking with them only food, instruments, and the flag

given to them by Queen Alexandra, they travelled, half-running, half-walking, for five hours, reaching latitude $88^{\circ} 23'$ at 9 o'clock, and there they hoisted her Majesty's flag, and the other Union Jack afterwards, and took possession of the plateau in the name of King Edward. Ahead of them, only 97 geographical miles away, lay the South Pole, the goal of all their strivings; but across that frozen stretch of snow and ice it was impossible to go. Looking through their powerful glasses, they scanned the horizon to the south; but only the great, white snow-plain could be seen. 'There was no break in the plateau,' Shackleton tells us, 'as it extended towards the Pole, and we feel sure that the goal we have failed to reach lies on this plain.'

And there, on its immense plateau, more than 10,000 feet above sea-level, the Pole guarded its secret; while the men who had struggled and endured to reach it, turned their faces to the north and stepped out for home.

As the four men had hurried on towards the Pole with feverish eagerness, so did they now endeavour to find their way back with equal haste. The struggle to reach the Pole itself was over, and they had been beaten, by weight of

circumstances, just when the goal was practically in sight. The fight for life was entering upon a new phase, and, if they were to win here, there was no time to lose. Every minute was precious, and, if they were not to starve and die by the way, they must hurry on, for salvation lay in speed. It was necessary to take risks that would not have been justifiable under more favourable circumstances, and so they crossed pressure-ridges and crevasses at full speed. Over the slippery ice-slopes they hurried in their race with death, the surface becoming gradually worse and the difficulties increasing all the time. Weakened by the privations already endured, and now reduced to about four biscuits a day each, the weary travellers could scarcely keep moving. They ate the last of their solid food on 26th January, and the next day they were almost too exhausted to continue. But they were coming near to the depot, and the prospect of having something to eat there spurred their lagging limbs to renewed effort. In extreme weakness, Adams collapsed on the frozen ground. Hurrying on to the depot, Marshall returned with some pony-meat and biscuits, which provided the party with the first food they had tasted for thirty-two hours.

Leaving the plateau behind, and treading the surface of the Barrier once more, they encountered there a fresh blizzard, which obscured everything from view; they could see only a few yards in front; but they dared not stand still, and so they pushed their way right through the blinding snow-storm. It was now a physical effort to cover one statute mile and a half in the hour, and, to make matters worse, all the party were attacked with dysentery. Reaching the depot, in $82^{\circ} 45'$ south, they picked up some scanty provisions and the sledge which had been left at that stage, and on 3rd February started off afresh. A day later, they were all prostrated again with dysentery; no march was possible, and the outlook was anything but cheering. Though they managed to resume their journey on the following day, it was only with extreme difficulty that they did so, and their 'life from this period was something in the nature of a nightmare.'

Reduced to half a pannikin of warmed meat and five biscuits a day for each man, they kept moving, with a little better progress than before, and on 13th February they reached the depot where the pony had been killed, with all their food finished. 'We got Chinaman's (the pony's)

liver, which we had to-night,' Shackleton wrote in his diary on that day. 'It tasted splendid. We looked round for any spare bits of meat, and while I was digging in the snow I came across some hard, red stuff, Chinaman's blood, frozen into a solid core. We dug it up, and found it a welcome addition to our food. It was like beef-tea when boiled up.'

Taking the pony-meat and biscuits that were to serve them till they reached Depot A, ninety miles farther north, they once more resumed the weary march, covering the ground at a smarter rate, and frequently travelling more than twenty statute miles in the course of the day. And so, day by day, the distance between them and headquarters gradually lessened. They were doing bravely in their struggle with the grim forces of Nature, and their strength was being fairly well maintained on the flesh of their dead pony, which, in spite of its having been exposed to the sun for a couple of months, tasted 'delicious.' 'Our food lies ahead, and death stalks us from behind,' Shackleton wrote on the 21st. The next day they came upon the tracks of a party of four men with dogs, and this encouraged them in the hope that the depot had been safely laid for them at

a point called the Bluff. At this depot they found plenty of food, and there also they learned of the *Nimrod's* return. With better heart they resumed their march, feeling that they were at last practically out of the wood. But one more trouble was in store. Suffering from another attack of dysentery, Marshall became too ill to proceed, and leaving him under the care of Adams, Shackleton and Wild made a forced march of thirty-three miles to the ship, which they reached on 1st March.

There were still the two men out on the icy waste to be considered, waiting in their weakness and loneliness for help. Shackleton, who had been without sleep for twenty-four hours, might easily have delegated the work of succour and rescue to subordinates, but he preferred doing the work himself. Taking time only to eat a hearty meal, he immediately started back to the relief of Marshall and Adams, reaching them after travelling for a day and a half, and bringing them back in safety to the ship. With little sleep, he had travelled ninety-nine miles in three days, at the end of a journey of 1700 miles—an achievement well worthy of ranking among the great deeds of Polar enterprise.

During the absence of Shackleton and his

comrades on the march towards the Pole, the other members of the expedition had also been busy. The northern party, under Professor David, left the winter-quarters on 5th October, with the object of discovering the Magnetic Pole, and in their long and perilous journey they experienced the same conditions and difficulties as those which fell to the lot of Shackleton and his men. They, too, had to climb a plateau which was intersected with numerous crevasses, and they frequently disappeared in them, fortunately without serious consequences. Climbing a succession of frozen terraces, they found themselves between 7000 and 8000 feet above sea-level, and on 16th January triumphantly reached the goal of their labours in latitude $72^{\circ} 45'$ south, longitude $155^{\circ} 16'$. There at the Magnetic Pole they proudly hoisted the Union Jack, and claimed the territory in the King's name. On their way back they were picked up by the *Nimrod*, after many perils and adventures, and just at the right moment, as they were in a pitiable plight through hunger and weariness.

Excellent work also was accomplished by the party which explored the western mountains in the interests of geology. The good fortune which attended the other sections of the expedition was

shared by this little band, and prevented what was almost a calamity. On the night of 22nd January, the three men constituting the party camped on an ice-floe. The following morning they were horrified to discover that the floe was adrift, and apparently bearing them to certain death. Throughout the day the ice continued its drift towards the sea, the men cheering each other as well as they could under the gloomy circumstances. A change in the current during the night brought the floe into temporary touch with the land-ice, and seizing the opportunity the explorers quickly escaped to a more secure position, leaving the floe to continue its course to the north. Next day the ship was sighted about eleven miles away, and very soon the men were safely on board and enjoying its comfortable shelter.

Without the loss of a single man, and with every member of the expedition in the best of health, the *Nimrod* soon afterwards sailed north, all on board feeling highly satisfied with the fruits of the expedition in all directions, but glad, nevertheless, to be once more on the way back to civilisation and friends.

CHAPTER XIX.

THE GREAT RACE TO THE GOAL.

WITH the North Pole already conquered, and with the southern goal on the very point of capitulating, one is quite safe in prophesying that the long-hidden secret of the South will soon be in possession of adventurous man. The success of Shackleton's wonderful march over the frozen wastes has demonstrated what can be accomplished by the adoption of wise measures and methods, and even as this book is being printed other explorers are hastening southwards, each fired with the ambition to reach the goal ahead of his rivals.

There was just the possibility, while the various preparations were being made, that the honour of being first at the South Pole might be won by Dr J. B. Charcot's French Expedition, which left in 1908, and which was in Polar waters while the world was listening to the great achievements of Sir Ernest Shackleton. But news of that expedition has since been received, and the South Pole remains hidden, as it has been since the beginning of time, in its icy fastness. But if he did not make his way to

the Pole, Dr Charcot, in spite of a series of accidents, claims that the entire scientific programme of the expedition was scrupulously completed. Collisions with icebergs, terrific tempests, shortness of food and coal, were among the many hardships experienced; but they were borne with the cheerful complacency of the average explorer, and they did not prevent the carrying out of a good and useful work. In the ship, the *Pourquoi Pas*, the expedition, during the first summer, was able to complete the French map as far as Adelaide Island, a curious island seventy miles in breadth, to the south of a vast gulf. A stretch of new land, 120 miles long, was surveyed, and the expedition ultimately reached Alexander I. Land. Wintering at Petermann Island, they experienced severe weather, and, in consequence, several members of the expedition were attacked with sickness. When the Antarctic summer came round, the expedition conducted exploration work on Deception Island and Budgeman's Island in the South Shetlands, and subsequently went south again, discovering new land to the west and south of Alexander I. Land. Sir Ernest Shackleton regards these discoveries as particularly important, as they go to link up that part of the continent with King Edward VII. Land,

and he says that in reaching 70° south and longitude 120° west, Charcot navigated a portion of the Antarctic which no ship had reached before.

Describing some of his experiences during this expedition, Charcot says they were lying in a bay which they had discovered, and which he had named Marguerite Bay, after his wife. 'Everything seemed quiet, and we were preparing for an expedition on the ice. There was a small iceberg about five hundred yards from the *Pourquoi Pas*. Two of us had been out in a boat to take soundings and make observations on the berg itself only a few hours before. I was writing in my cabin—it was about half-past eleven at night—when suddenly a tremendous roar was heard. I sprang on deck to find that the iceberg was capsizing. It was coming straight towards us, rolling on its axis, big slices breaking off as it advanced. By the rarest of good fortune we had steam up. I signalled to the engineer, who fortunately understood my gesture to go full speed astern, at the same time ordering the crew to slip the cables. On came the berg, passing clean over the spot where we had been moored to the ice a few seconds before. So narrow was our escape that it smashed one of our boats, and a lump of the iceberg broke off and wedged

itself under the bowsprit, where we kept it for nearly a week. If we had been in bed, with only the ordinary look-out on deck, that would have been the last ever heard of us and the *Pourquoi Pas!* That shows what the unforeseen means in South Pole exploration.'

Charcot, therefore, not having reached the Pole, the way is still open, and the honour of being first there has now become a matter of international competition. The Stars and Stripes have been planted at the northern apex of the earth's surface, and the representatives of the Union Jack are determined that, having carried their flag to within less than a hundred miles of the goal, they will not rest content till they see it fluttering at the Pole itself. But there are rivals in the field. While Dr Bruce, the Scottish explorer, is once more preparing to pursue his valuable investigations in the southern waters, America, ambitious for a dual victory, is a likely competitor, and Germany also is running in the race Polewards.

Again in command of the British expedition, Captain R. F. Scott, whose work in connection with the famous *Discovery* Expedition has been described in an earlier chapter, sailed from these shores to join the steamship *Terra Nova*, which took her

departure from the Thames on 1st June 1910, and the nation is looking to him to maintain British supremacy in the Antarctic. Well fitted for ice-navigation, this vessel is the largest and strongest of the old Scottish whalers, and in 1903 was purchased by the Admiralty as relief-ship for the *Discovery* Expedition. The main object of the expedition, as Captain Scott himself has described it, is to reach the South Pole, and secure for the British Empire the honour of that achievement. The plan for the journey to the Pole from King Edward VII. Land includes the use of three means of sledge traction. Ponies will be taken in sufficient numbers to ensure a thoroughly adequate amount of food being conveyed to the base of the glacier. A dog-team, with a relay of men, will transport the loads over the glacier surface, and a picked party of men and dogs will make the final dash across the inland ice-sheet.

The scientific objects of the expedition have thus been described by Captain Scott: Geographical—to explore King Edward Land; to throw further light on the nature and extent of the Great Barrier ice-formation; and to continue the survey of the high mountainous region of Victoria Land. Magnetic—to duplicate the records of the elements

made by the *Discovery* Expedition with magnetographs. The plan which has been devised to secure the main object of the expedition, together with the subsidiary plans for the complete exploration of the region of King Edward VII. Land, will necessitate the establishment of a strong party of men at the winter-station and a more ample equipment than has hitherto been taken.

This will be the first time in the history of Antarctic exploration that motor-sledges have been used in an endeavour to reach the Pole. Captain Scott says that he thought out the idea of the motor-sledge after the last expedition, and though he is not relying upon it altogether, he has the greatest hope of its utility. 'The sledge,' he has explained, 'lays its own track. A 12 to 15-horse-power engine drives the two rear wheels. Connecting these with the front wheels are two endless bands, having flat pieces of wood on the outside and rollers on the inside. The sledge wheels run on the inside rollers. Carrying a load of nearly two tons, partly food, partly fuel, a sledge can travel three miles an hour. In that time the engine consumes one gallon of petrol. By November 1911, I hope we shall be overcoming the difficulties of the mountain regions. It may not prove possible

to take the motor-sledges over the glaciers. If not, we must drop them. At stages on the dash across the mountain regions we shall leave behind four of the men, then another four; then a third four. At each selection the fittest will go on. The four who prove finally the fittest will make for the Pole. Our prospects of success will be greatly improved if, as I strongly hope, the dogs are able to climb the glaciers. If not, the men themselves will be compelled to haul the dog-sledges.'

With regard to the proposed American expedition, Scott regards it in the friendliest light. Both expeditions will be starting for the Pole about the same time. 'From the American base, on the Weddell Sea,' Captain Scott has said, 'there is thought to be a gradual slope upwards to the Pole. The Americans will have two mountains and glaciers to cross most probably; but up to the present time no suitable spot for wintering is known to exist in that part of the Antarctic continent.'

The departure of the Scottish National Antarctic Expedition, under Dr Bruce, will probably be made in May 1911. After touching at Capetown, a course will be steered for the Sandwich group, and thence to Coats's Land, where a party of ten or twelve will be landed. The ship will winter at

Melbourne, where the co-operation of the Australian and New Zealand governments will be invited for special work. In the following spring the ship will push on southward to M'Murdo Strait, where a sledge party with supplies will be sent farther south for the party, under the leadership of Dr Bruce, crossing over the Antarctic continent by way of the South Pole from Coats's Land.

Germany, too, as already mentioned, is sharing in the great struggle. Lieutenant Filchner, an explorer who has travelled extensively in Tibet and the Far East, purposes to make two dashes simultaneously from different points, one expedition starting from Weddell Bay and the other from Ross Sea.

With these competitors in the field the race cannot fail to be exciting. Surely by one party, at least, the Pole will be conquered. To which will the honour fall? It would be vain to prophesy. We can only, in the phrase which the Prime Minister (Mr Asquith) has rendered famous, 'Wait and see.'



